In The Matter Of:

United States vs.
PFC Bradley E. Manning

Vol. 7

June 17, 2013

UNOFFICIAL DRAFT - 6/17/13 Afternoon Session

Provided by Freedom of the Press Foundation

1

1   VOLUME VII

2   IN THE UNITED STATES ARMY

3

4   UNITED STATES

5   VS.

6   MANNING, Bradley E., PFC   COURT-MARTIAL

7   U.S. Army, xxx-xx-9504

8   Headquarters and Headquarters Company,

9   U.S. Army Garrison,

10   Joint Base Myer-Henderson Hall,

11   Fort Myer, VA   22211

12   _____/

13

14

15   The Hearing in the above-entitled matter was

16   held on Monday, June 17, 2013, commencing at 1:35 p.m.,

17   at Fort Meade, Maryland, before the Honorable Colonel

18   Denise Lind, Judge.

19

20

21

2

1   DISCLAIMER

2

3   This transcript was made by a court reporter

4   who is not the official Government reporter, was not

5   permitted to be in the actual courtroom where the

6   proceedings took place, but in a media room listening

7   to and watching live audio/video feed, not permitted to

8   make an audio backup recording for editing purposes,

9   and not having the ability to control the proceedings

10   in order to produce an accurate verbatim transcript.

11

12   This unedited, uncertified draft transcript

13   may contain court reporting outlines that are not

14   translated, notes made by the reporter for editing

15   purposes, misspelled terms and names, word combinations

16   that do not make sense, and missing testimony or

17   colloquy due to being inaudible by the reporter.

18

19

20

21

```
 1   APPEARANCES:

 2

 3            ON  BEHALF  OF  GOVERNMENT:

 4                MAJOR  ASHDEN  FEIN

 5                CAPTAIN  JOSEPH  MORROW

 6                CAPTAIN  ALEXANDER  VON  ELTEN

 7                CAPTAIN  ANGEL  OVERGAARD

 8                CAPTAIN  HUNTER  WHYTE

 9

10            ON  BEHALF  OF  ACCUSED:

11                DAVID  COOMBS

12                CAPTAIN  JOSHUA  TOOMAN

13                MAJOR  THOMAS  HURLEY

14

15

16

17

18

19

20

21
```

1   INDEX

2   June 17, 2013

3

19

20

21

```
 1   PROCEEDINGS,

 2                (Reconvened at 1:35 p.m.)

 3                THE COURT:  Were there any issues we need

 4   to address before we proceed?

 5                MAJOR FEIN:  All parties in the court last

 6   recess are present.

 7                THE COURT:  Thank you.

 8                MAJOR FEIN:  United States offers to be

 9   read on to the record Prosecution Exhibit 137, a

10   stipulation of expected testimony for Mr. Maxwell Allen

11   dated 16th June 2013.

12                (stipulation being read).

13                THE COURT:  I have a question for you.  I'm

14   looking at Prosecution Exhibits 138, 139, they're not

15   legible.

16                MAJOR FEIN:  At the next recess the United

17   States will look 138 and 139 and get a clearer copy.

18                THE COURT:  Prosecution Exhibit 141 for

19   identification is admitted.  Prosecution Exhibit 140

20   for identification is admitted.

21                CAPTAIN MORROW:  Your Honor, United
```

 1 States offers Prosecution Exhibit 142 for

 2 identification. It's the stipulation of expected

 3 testimony for Staff Sergeant Peter Bigelow.

 4   THE COURT: I believe I already admitted

 5 that.

 6   (stipulation being read).

 7   MR. MORROW: United States offers

 8 Prosecution Exhibit 143, stipulation of expected

 9 testimony for Special Agent Alfred Williamson dated 17

10 June 2013.

11   (stipulation being read).

12   MR. MORROW: Your Honor, at this time

13 prosecution moves to admit Prosecution Exhibits 47, 48,

14 144, 145, and 146, and 147 Alpha, and 148 Alpha for

15 identification into evidence.

16   MR. HURLEY: No objection, Your Honor.

17   THE COURT: So admitted.

18   Prosecution Exhibit 148 Alpha is

19 admitted. Prosecution Exhibit 147 Alpha is

20 admitted. Prosecution Exhibit 147 Bravo for

21 identification is admitted. Prosecution Exhibit 146

 1   is admitted. Prosecution Exhibits 47 and 48 are

 2   admitted. Prosecution Exhibit 146 is admitted. 145

 3   is admitted. 144 is admitted.

 4   Any other exhibits I have failed to

 5   admit?

 6   MAJOR FEIN: That's it, Your Honor.

 7   THE COURT: At this time why don't we take

 8   a brief recess and I want to see counsel for just a

 9   brief second.

10   Ten minutes sufficient?

11   MAJOR FEIN: Yes, Your Honor.

12   MR. COOMBS: Yes, Your Honor.

13   (Hearing recessed at 2:10 p.m.)

14   (Hearing resumed at 2:20 p.m.)

15   MAJOR FEIN: Your Honor, there might be

16   some confusion about Prosecution Exhibits 147 Alpha,

17   147 Bravo, and 148 Alpha, and 148 Bravo.

18   Prior to the recess United States moved

19   to admit Prosecution Exhibit 147 Alpha or 148 Alpha.

20   Those are the 20-page extracts from the two text

21   files based of Special Agent Williamson's stipulated

```
 1   expected testimony.
 2             In addition to that now United States
 3   moves to admit as 147 Bravo and 148 Bravo one page
 4   redacted versions of those 20 page extracts in order
 5   to be used in open court.
 6             THE COURT:  Any objection?
 7             MR. HURLEY:  No, ma'am.
 8             THE COURT:  I'll visit those momentarily.
 9             Are there any other administrative
10   issues that we have to address?
11             MAJOR FEIN:  No, ma'am.
12             MR. COOMBS:  No, Your Honor.
13             THE COURT:  Okay.
14             Did you have an opportunity to look into
15   I believe it was Prosecution Exhibits 138 and 139?
16             MAJOR FEIN:  United States is still trying
17   to find a cleaner copy of those and we'll bring it to
18   it Court's attention as soon as we obtain them.
19             THE COURT:  Prosecution Exhibits 147B and
20   148B are admitted.
21             Please proceed.
```

1   MAJOR VON ELTEN: Your Honor, United

2   States calls Chief Ronald Nixon to the stand.

3   Whereupon,

4   CHIEF RONALD NIXON,

5   called as a witness, having been first duly sworn to

6   tell the truth, the whole truth and nothing but the

7   truth, was examined and testified as follows:

8   DIRECT EXAMINATION

9   BY MAJOR VON ELTEN:

10   Q   Your Honor, Chief Ronald Nixon, Army cyber

11   unit?

12   A   Yes, sir.

13   Q   What is your current position?

14   A   My current position, I'm senior warrant

15   officer in the Enterprise Management Division G32 Army

16   cyber command.

17   Q   What does that entail?

18   A   We manage literally all the Army networks

19   from secret level and below across the Enterprise which

20   is across the global scope to include tactical and

21   strategic systems.

```
 1        Q       What is the Enterprise?

 2        A       The Enterprise is the -- Enterprise is the

 3   network as whole.  The Army refers to it as the land

 4   (INAUDIBLE) but it is the network all encompassing.

 5        Q       What position did you hold prior to this

 6   one?

 7        A       Prior to that one I was the senior warrant

 8   officer in plans and operations division G6

 9   (INAUDIBLE).

10        Q       What did that entail?

11        A       Very similar duties, a tactical scale.  So

12   support the combat operations, planning operations,

13   services, management and network design.

14        Q       Where were you?

15        A       At Fort Hood.

16        Q       What certifications do you possess?

17        A       CCMP, cisco assist co-certified CCMB, CCMA

18   CCM security CCM (INAUDIBLE) and CIS group.

19        Q       What are the CC in certifications?

20        A       Cisco certified network and then

21   professional associate and associate security and
```

```
 1  associate voiceover IP.
 2       Q      What do those certifications signify?
 3       A      An understanding and tested understanding
 4  of network architecture and design, engineering, and
 5  management.
 6       Q      What is CISSP?
 7       A      It's really the current industry standard
 8  for securing an information assurance.
 9       Q      What is the level of technical access and
10  review of the DoD 8578?
11       A      Level 3.
12       Q      Is what the highest level?
13       A      Level 3.
14       Q      What certification is required for that?
15       A      It requires a technical skill set which
16  would be higher been a CCNA and then a policy piece
17  which would be my CISSP.
18       Q      Let's talk a little bit about your last
19  time in Iraq?
20       A      Yes is.
21       Q      What was your position there?
```

 1   A   I was the senior warrant and the planning

 2   and operations (INAUDIBLE).

 3   Q   When were you there?

 4   A   I was there from February of '09 to

 5   February of '10.

 6   Q   What did that position entail?

 7   A   Network engineering, design, planning for

 8   operations, support for the entire theater of Iraq.

 9   Q   What is USFI?

10   A   That's the four star's headquarters. That

11   was created when they combined MNFI and MNCI into a

12   joint four star headquarters, rolling up the I corps.

13   the corps headquarters (INAUDIBLE).

14   Q   Let's talk about the global address list.

15   What is that?

16   A   The GAL, global address list, is are

17   talking about the global address for a user server or

18   are you talking about the global address list as a

19   whole?

20   Q   As a whole.

21   A   The global address list is a product from

1 the active directory global address list which

2 everyone, every person who has an account has access to

3 that domain and every machine that's added to that

4 domain is cataloged.

5   Q   What is the global address list for a user?

6   A   The global address list for the user is the

7 interface that most of them see through Outlook and

8 what that is in a sense is a phone book. It is a phone

9 book equivalent for all of your services out there, but

10 it does contain user's e-mail, any alias e-mail

11 accounts, any pertinent information that would be added

12 for the ease of the user. So it helps me find your

13 phone number and things like that.

14   Q   Until how many people were on the USFI GAL

15 in 2009/2010?

16   A   160,000.

17   Q   What server was that accessible on?

18   A   Across a run of servers. You're able to

19 access the GAL through -- for an exchange you'll be

20 able to access the GAL through Outlook (INAUDIBLE) also

21 for the system administrator you will be able to access

1   the GAL through Outlook on his machine and also for a

2   system administrator he would be able to access the GAL

3   through either the exchange server or the active

4   server, the domain controller.

5   Q   What type of information does the GAL

6   contain?

7   A   Again, from an individual user perspective,

8   so I can't for (INAUDIBLE) as an example would have the

9   pertinent information for you when you first set up

10 your account, when you were added to the domain, any

11 alias addresses you would have, for instance, you would

12 have in Iraq, you would have the Iraq.centcom.mil plus

13 if you have your (INAUDIBLE).mail attached to that

14 account and you set an account or a CENTCOM joint

15 account, things like that, for the individual user; but

16 it also contains the additional -- when you're looking

17 at the GAL from that directory standpoint. It also

18 contains all of the additional security information

19 user name, password, certificates that are attached to

20 that, and then anywhere they sit within the (INAUDIBLE)

21 domain structure.

```
 1        Q       You talked about active directory what is
 2   active directory?
 3        A       Active directory is -- active directory is
 4   the directory service that all Microsoft servers use to
 5   be able to talk and interconnect with one another.
 6   Prior to active directory exchange, exchange, for
 7   instance, used to have (INAUDIBLE).  They created an
 8   active directory to combine all of those services
 9   together, to join them all at one place so it allows
10   all of the servers to be able to crossing communicate
11   so SharePoint file servers exchange things like that
12   that are all allowed to talk it sets the permission of
13   what they're allowed to talk to.
14        Q       What is a directory of service?
15        A       So directory service is my category for
16   servers to be able to talk to another one without
17   getting too technical, it really is just -- so, for
18   instance, my domain control my active control says that
19   I am allowed to talk to this division or this corp at
20   these levels and then establishes the trust
21   relationship between them.
```

```
 1         Q       What is the purpose of active directory?

 2         A       Active directory is the core backbone for

 3   all directory services for Microsoft exchange server.

 4   So for a brigade, for division level exchange server to

 5   be able to talk to somebody else within USFI they would

 6   have to be able to access those primary active

 7   directory, that directory itself (INAUDIBLE) to do

 8   those cross talks.

 9               It's also a certification process if you

10   wanted to be able to access another type of server

11   SharePoint that checks your credentials (INAUDIBLE) yes

12   Captain might not be able to do these things and this

13   is what he's able to do.

14         Q       What credentials does it show?

15         A       Well, depending on how you're (INAUDIBLE).

16   For Iraq user name and password was the primary means

17   of credentials.

18         Q       What are permissions?

19         A       Permissions are, what am I allowed to do on

20   a set system or server.  So primary example is, user

21   services.  By Army regulations DODI CJCSI regulations
```

1 (INAUDIBLE) a user is only allowed to do certain things

2 on his machine.

3   He's allowed to access the Internet. He's

4 allowed to open up and (INAUDIBLE), but you're not

5 allowed to install anything on your machine as a user.

6 You can't even update your machine any more.

7   Q   How does active directory support security?

8   A   By a couple of different ways. One is it

9 sets everything up in a domain structure. So basically

10 it tells you (INAUDIBLE) what can talk to you, what can

11 you talk to around within the network.

12   It sets and manages by permission levels

13 for my individual user, my system administrator and my

14 network administrators, then it also controls the trust

15 relationship between the different domains. So that

16 trust relationship is a exchange of information from

17 one domain or one set of servers, to put it simply.

18   So from USFI to 1st Calvary Division, the

19 domain control is established and maintain that

20 relationship, kind of like a traffic cop.

21   Q   How does the active directory interact with

```
 1   the GAL?

 2        A      So your active directory for -- so let's

 3   take it from a GAL perspective of the user.

 4        Q      Okay.

 5        A      Okay.  So GAL perspective from the user,

 6   I'm an e-mail Internet exchange and I log on to

 7   Outlook.  The GAL I see from that is a product of the

 8   active directory GAL.  It is then basically it's what

 9   the exchange server pulls to create the GAL.  So it is

10   a direct product of the active directory global address

11   list.

12        Q      How does active directory interact with the

13   GAL from a system administrator perspective?

14        A      From the system administrator perspective

15   (INAUDIBLE) lot into a system as a system

16   administrator, the active directory says, Chief Nixon

17   is allowed to add programs to the software.

18               I'm allowed to push updates.  I'm allowed

19   to do things that in order to affect change to that

20   insurance or affect change on the server or the network

21   within that rule set because of the dangers of system
```

```
 1   administrative (INAUDIBLE) to what approval so I'm now

 2   allowed to have access to e-mail, and I don't have

 3   access to an e-mail account while being the system

 4   administrator.

 5        Q      What software does a user use to interact

 6   with the GAL?

 7        A      Primarily would be Outlook.  It's where

 8   they see it the most often.

 9        Q      Do you how many people created the NIPR in

10   USFI?

11        A      Reword the question, please, or ask it a

12   different way.

13        Q      How many people are involved with

14   developing it initially?

15        A      The initial development of the GAL for USFI

16   took place over the years.  Multinational (INAUDIBLE)

17               MR. HURLEY:  Objection.

18               Is that personal knowledge?

19               THE COURT:  Do you want to develop a

20   foundation for that?

21               MAJOR VON ELTEN:  We'll move on, Your
```

```
 1    Honor.
 2              BY MAJOR VON ELTEN:
 3        Q     Let's talk about the resources that go into
 4    creating and (INAUDIBLE) the GAL.  What hardware does
 5    the network did the GAL use for the network?
 6        A     So for the GAL primary active directory and
 7    exchange structure in Iraq for NIPRnet, you had four
 8    nexus backbone switches, two for the primary and two
 9    for the back up group and then you have a stack of 64
10    server suites that supported the primary site, and
11    after that you also had all the normal network
12    infrastructure cable (INAUDIBLE) switches, outside
13    equipment.
14        Q     What is a nexus switch back.
15        A     The nexus switch is a five channel high
16    speed (INAUDIBLE) switching backbone used to support
17    the back of your server (INAUDIBLE) servers to be able
18    to communicate in no (INAUDIBLE).
19        Q     How many does the NIPRnet use?
20        A     Four, two on the primary and two on the
21    backup site.
```

1   Q   What is the cost?

2   MR. HURLEY: Objection, hearsay.

3   THE COURT: Sustained.

4   BY MAJOR VON ELTEN:

5   Q   Were you involved in contracting for the

6 backbone service?

7   A   Yes. I was the technical oversight for the

8 DRS contract at the (INAUDIBLE) of the USFI services in

9 Iraq.

10   Q   Who managed the hardware?

11   A   Who managed the hardware? We had a 20 to

12 24 contracted personnel that worked in the services

13 section within the JNCCI, one warrant officer, one

14 major, and five or six enlisted personnel.

15   Q   How much time did they spend working on

16 this?

17   A   24/7 365, no breaks.

18   Q   What was your interaction?

19   A   I worked with them on a daily basis for

20 planning administration and fulfillment of requirements

21 for services across all Iraq.

1   Q   How many servers did the GAL require for

2 NIPRnet?

3   A   The GAL itself would have been present

4 on -- well, the active directory itself. So you're

5 talking about (INAUDIBLE) that comes into that physical

6 server suite of 64 servers that we used to maintain and

7 run NIPRnet within Iraq.

8   Q   How many of those servers were physical

9 servers?

10   A   I'm talking about 64 physical servers,

11 virtual servers is over a hundred.

12   Q   What is a physical server?

13   A   Physical server is a Dell or whatever brand

14 of (INAUDIBLE) that you actually put your hands on and

15 hold. Hardware, hard drive memory, processor, I can

16 actually put my hands on and touch.

17   Q   What is a virtual server?

18   A   Is a software driven and software created

19 server. Use visualization sayings to be able to reduce

20 the amount of physical overhead you have as far as

21 power and things like that. Power and physical

```
 1   requirements for the servers it also allows you to

 2   share resources if you have a failure in one I can

 3   replicate back up to another with no loss of service.

 4        Q      How many contractors worked on the server?

 5        A      We had those 25 to 24 contracted personnel

 6   are the same ones that did the maintenance and

 7   (INAUDIBLE).

 8        Q      Now often were those contractors working on

 9   the servers?

10        A      24/7 365 always.

11        Q      Who paid their salaries?

12        A      The salaries were paid out of the USFI

13   funding.

14             MR. HURLEY:  Objection, hearsay.

15             BY MAJOR VON ELTEN:

16        Q      Is that from your personal knowledge?

17        A      Not a fact, out of the budget.

18             THE COURT:  How do you know that?

19             THE WITNESS:  The (INAUDIBLE) of USF over

20   sizes for the (INAUDIBLE).

21             THE COURT:  Sustain the Objection.
```

1   Go ahead.

2   BY MAJOR VON ELTEN:

3   Q   What's your involvement in budgeting.

4   A   In budgeting itself, none. I didn't do a

5 budget, per se. It was over technical oversight and

6 management of the contract.

7   Q   How did you -- did you manage cost?

8   A   I had oversight on cost. I didn't -- I

9 wasn't a yes or no person on that, but we managed so if

10 something was cost prohibitive or something like that

11 we would (INAUDIBLE) but we saw all functions of the

12 contract.

13   Q   What cable did the GAL use?

14   A   The server infrastructure used a massive

15 amount of cabling between the primary and secondary

16 sites, and all of the cabling in structure and

17 (INAUDIBLE) basis and every insulation you have to

18 switch infrastructure (INAUDIBLE).

19   Q   What the (INAUDIBLE) account GAL require?

20   A   The server infrastructure at USFI was in

21 excess of 100,000 thousand tons of cooling and power.

1   Q   What is does that mean?

2   A   Well, you equate -- so when you cool your

3 house you have a number of BTUs it takes to cool your

4 house. Your standard wall air condition is 15,000

5 BTUs. You buy a 15,000 BTU at Wal-Mart.

6   We're looking at (INAUDIBLE) and take that

7 and multiply it by 2,000, but it's the actual physical

8 cooling requirement for the servers and all of the

9 networking equipment that's supported inside of that

10 building.

11   Q   What of transmission infrastructure did the

12 GAL use?

13   A   Well, the GAL used server infrastructure of

14 Iraq used two sonic rings that moved in and around

15 Baghdad and north and south had a sonic ring and you

16 had a satellite structure backup.

17   Q   Let's talk a little bit about the software.

18 What software did the backbone servers require?

19   A   Well, the backbone servers required your

20 Microsoft suite of servers. So we ran (INAUDIBLE) to

21 2003 and 2008 across Iraq Enterprise licenses for those

1 and you had exchange the active directory.

2   So that would be four core backbone

3 services that we've talked about here and your

4 management consoles and all of the supportive structure

5 for that and antivirus host based firewalls and those

6 (INAUDIBLE).

7   Q   What is virtual (INAUDIBLE) software?

8   A   So in Iraq we used (INAUDIBLE) wire aid to

9 do creating a virtual environment for services and

10 services stacks within Iraq. So you run a virtual

11 environment. So it allows me to create multiple

12 servers on a single platform to be able to share my

13 resources.

14   Q   What server software was used?

15   A   Well, we used server 2000, we used 2003 and

16 2008, and then the active directory software that was

17 used management console and exchanges itself.

18   Q   How many licenses were required?

19   A   They're Enterprise licenses. So depending

20 on how you purchase from Microsoft at the time you

21 purchase an Enterprise license and based on the number

1 of systems.

2   For instance, let's take the NIPRnet. We

3 ran 120, 130 instances of Microsoft Exchange to be able

4 to support -- Microsoft server 2003 or 2008 to be able

5 to support 160,000 customers.

6   Q   How many licenses did active directory

7 require?

8   A   It would have been the same thing, very

9 similar. Again, same thing and you buy an Enterprise

10 license (INAUDIBLE) but then I have to buy myself

11 (INAUDIBLE) software based on a number of (INAUDIBLE)

12 that you have to be able to support. So in that case

13 it would have been about 160,000.

14   Q   What kind of maintenance did the GAL

15 require to keep it current?

16   A   Well, of course, you've got secure web

17 dates and you've got your daily (INAUDIBLE). So any

18 time an update comes out from Microsoft you have to

19 able to maintain security or maintain (INAUDIBLE) on

20 the platform.

21   So you have Microsoft at least once a week

 1 and for antivirus and securities sometimes daily.

 2   Q   Who updated the GAL?

 3   A   Again, updating the GAL are we talking

 4 about from a update perspective or are we talking about

 5 from a content perspective?

 6   Q   First from an update?

 7   A   Same 20, 24 contractors and the military

 8 staff who worked in the JNCCI for USFI.

 9   Q   Who updated the GAL from a content

10 perspective?

11   A   From a content perspective you're updates

12 were done from all across the board. We have local

13 system administrators who would create (INAUDIBLE),

14 your help desk, and then you've got your overall

15 maintenance of the GAL that would have been active

16 directory or exchange which would have been done at

17 USFI.

18   Q   How often -- how many people were involved

19 with updating content?

20   A   Well, from USFI perspective, we're talking

21 at same 20 to 24 personnel plus enlisted staff but that

1   doesn't count the ITT contract that is spread out over

2   Iraq that (INAUDIBLE) all of our help.

3   Q   How often do your military staff work on

4   this?

5   A   All the time.

6   Q   How many?

7   A   Dozens, sir, because you have the strategic

8   single (INAUDIBLE), and supported by the help desk.

9   Then you have some type of military personnel sitting

10 on top of you (INAUDIBLE). Then you're talking USFI

11 again. The USFI guys you're talking about Major

12 (INAUDIBLE) and enlisted (INAUDIBLE).

13   Q   How are updates pushed out to the GAL?

14   A   Updates to the GAL from again from a

15 content service or from a --

16   Q   Content.

17   A   From a content point of view, they were

18 done constantly. So, again, if somebody came into

19 country the first time and the account was created then

20 that update would have been done then, and there does

21 take about 24 hours for the update to take place when

1 you're talking about from a content standpoint.

2   Adding a machine to a domain, those are

3 recurring costs of things that happen all the time.

4 They've actually a day-to-day function, and then my

5 maintenance updates would have pushed down from USFI,

6 from contract to the military staff (INAUDIBLE).

7   Q   How was GAL information stored?

8   MR. HURLEY: Objection, Your Honor.

9   MAJOR VON ELTEN: Resources prior to

10 maintaining his evaluation?

11   MR. HURLEY: I think we've (INAUDIBLE)

12 resources to maintain the GAL.

13   THE COURT: Go ahead.

14   BY MAJOR VON ELTEN:

15   Q   How is GAL information stored?

16   A   For the physical storage of the GAL was

17 maintained on the two, for the NIPRnet was NIPR and

18 SIPRnet both on the installed at USFI headquarters.

19 That's where the primary repository was and then you

20 had servers at each and every instance of exchange

21 order across Iraq.

1 Q What is the SAN?

2 A SAN is storage area network.

3 Q How much does a SAN hold, how much storage?

4 A Ours was in the hundreds of terabytes.

5 Q How many (INAUDIBLE) are required for the

6 NIPR?

7 A Two, one primary at the one primary at USFA

8 headquarters and one another the (INAUDIBLE).

9   MAJOR VON ELTEN: Retrieving Prosecution

10 48.

11   MAJOR VON ELTEN.

12   Handing Prosecution Exhibit Number 48 to

13 the witness.

14   MAJOR VON ELTEN:

15 Q Chief Nixon, do you recognize this?

16 A Yes, sir.

17 Q What is it?

18 A It's a CD that says GAL on it.

19 Q Have you reviewed it?

20 A Yes, sir.

21   MAJOR VON ELTEN: Retrieving Prosecution

1 exhibit (INAUDIBLE) I'm handing it to the court

2 reporter. Retrieving Prosecution exhibit 148 Bravo and

3 handing it to the witness.

4   MAJOR VON ELTEN: Permission to publish.

5   THE COURT: Proceed.

6   BY MAJOR VON ELTEN:

7   Q   Do you recognize this Chief Nixon?

8   A   Yes, sir.

9   Q   What is it?

10   A   This is the -- this is the output of a GAL

11 pool from one of the foreign exchange servers at USFI.

12   Q   How do you know?

13   A   The ones I'm looking at if I look at the

14 domain names they're all present on Iraq (INAUDIBLE).

15 So these were all the e-mails addresses that I stored

16 (INAUDIBLE) transferred to GAL and, of course, the

17 string, the way the string is set up (INAUDIBLE) that

18 shows the SNPT string you can go to Outlook and look at

19 bring up two, but the (INAUDIBLE) that would be the

20 string you would see up there.

21   Q   What is a domain?

1   A   A domain is the space that you're name

2 space that you operate within a network. So in Iraq we

3 use iraq.centcom.mil preference with that (INAUDIBLE).

4 So the those are the operating spaces the named

5 operating spaces that you operate in. So I each one

6 that's different from another represents a domain that

7 you had to have trust relationships to be able to talk

8 or communicate across with another one.

9   Q   Retrieving prosecution 47. What

10 (INAUDIBLE) handed you, Chief Nixon?

11   A   You're handed me a CD with GAL names on it.

12   Q   How do you know?

13   A   I've seen it before, sir.

14   Q   Retrieving Prosecution Exhibit 47 and

15 retrieving Exhibit 137 Bravo. Do you recognize this?

16   A   Yes, sir.

17   Q   What is it?

18   A   This is the -- this would be a the names

19 that would you get.

20   Q   A GAL or the (INAUDIBLE) someone. For

21 instance if you were looking at two if you find the

1   first part of somebody's name and hit control K that be

2   what would you see. It's the users reference or

3   interpretation of GAL information.

4   What information is displayed in this?

5   A   Anything that entered is well standard for

6   military is first name last name, rank, and then unit

7   affiliation. So, again, you're able to tag somebody

8   down to what unit they work at very quickly and easily.

9   MAJOR VON ELTEN: Returning Prosecution

10   Exhibit 137 Bravo.

11   BY MAJOR VON ELTEN:

12   Q   What is a coop site?

13   A   It's a continuum operation sees the backup.

14   Q   What's its purpose?

15   A   For both military, for (INAUDIBLE)

16   regulations and per combat operations in a war

17   (INAUDIBLE) to have the ability to abandon all of your

18   information. So for Iraq for the USFI services in

19   Iraq, the Iraq in domains we created an installed to --

20   allows a back --

21   THE COURT: What it called?

1   THE WITNESS: Copy keeper. AR500-3, I

2   believe.

3   BY MAJOR VON ELTEN:

4   Q   What resources are required for the coop

5   site?

6   A   So for Iraq we had maintained real time.

7   We had to maintain real time replication. So that's

8   why the nexus fiber channel stitches switches were the

9   primary ones you had for the backbone services. It

10   basically requires similar storage, nearly the same

11   operating the space and capacity for the physical

12   serving environment.

13   Q   Who had access to the (INAUDIBLE) in Iraq?

14   A   From a user perspective.

15   Q   From a user perspective?

16   A   From a user perspective you had access to

17   the call if your registered in the domain to have

18   access.

19   Q   What people would have registered?

20   A   Only e-mail people with created accounts.

21   So you've designed to use your agreement

```
 1   being cleared to be able to do so and you had an

 2   account created.

 3         Q      What people in the United States would have

 4   access to such (INAUDIBLE)?

 5         A      From the United States?

 6         Q      Yes.

 7         A      None.

 8         Q      So what people in Iraq would have had

 9   access to the USFI?

10         A      The people who works on USFI domain?

11                MAJOR VON ELTEN:  Retrieving Prosecution

12   Exhibit 48.

13                BY MAJOR VON ELTEN:

14         Q      Chief Nixon, what information is on that

15   CD?

16         A      It's the list of GAL e-mail traffic or the

17   exchange pool from the exchange server in Iraq.  So the

18   e-mail information.

19         Q      How do you know?

20         A      As I said before, when it was up on the

21   screen you can see -- one is you can see all of the
```

```
 1   Iraq domain name information on there, and the SMPT

 2   (INAUDIBLE).  Do you (INAUDIBLE) and you click e-mails

 3   you would actually see that would be the information

 4   you would see in there in that context box.

 5        Q      How much access would have and how much of

 6   the (INAUDIBLE) would an individual user have access?

 7        A      So within exchange Outlook gives you a set

 8   view.  That would be the information that's provided

 9   for lack of a better term public consumption within the

10   Iraq network.  So name, contact information, those

11   types of things, e-mails, if any groups that you belong

12   to that would be the content that you would see.

13              You wouldn't be able to see further

14   information like what your permission set were or what

15   OUs you belonged to or domain structure you belonged

16   to.

17              THE COURT:  What?

18              THE WITNESS:  Each operating environment

19   within your domain structure.

20              BY MAJOR VON ELTEN:

21        Q      What does OU stand for?
```

1   A   It escapes me right now, sir.

2   Q   How many of the 160,000 accounts could the

3 individual user see who had access to the GAL?

4   A   All of them. So when I hit control K in

5 Iraq at our IP headquarters, if I didn't put any

6 information in there, I would (INAUDIBLE) approving all

7 160,000 names.

8   Q   What if you worked at headquarters just on

9 a (INAUDIBLE).

10   A   If I was -- let's take (INAUDIBLE) at 1st

11 cav headquarters, (INAUDIBLE) with them on a regular

12 basis (INAUDIBLE) so they would be able to search my

13 GAL for a targeted individual, but they wouldn't

14 necessarily see the USFI headquarters.

15   So if you're within a division structure

16 you would see 25 or 30,000 names within that

17 infrastructure.

18   Q   How would a user access the other 13,000

19 names?

20   A   You would have to search for them. As long

21 as they're in the Iraq domain you would have to search

1 for them. It's not a automatic here you go and it's

2 done.

3   To keep from overloading the system, if you

4 pulled out 160,000 names in Outlook, you know, you're

5 just going lock your system up. So, you know, but do

6 you have access to all of them? Yes. Can you actually

7 pool and stream the rundown on all 160,000, no; but,

8 yes, you have definitely have access to all of them.

9   Q   How many e-mail accounts were reflected on

10 that CD?

11   A   I want to say it was about 24,000 were on

12 that CD.

13   MAJOR VON ELTEN: Retrieving Prosecution

14 Exhibit 48. Retrieving Prosecution Exhibit 47.

15   BY MAJOR VON ELTEN:

16   Q   How many names were on that CD?

17   A   This names on the CD matched the e-mail

18 exchange list line for line. So it was -- it was about

19 24,000.

20   Q   What names would be hidden from GAL in 2009

21 and 2010?

1   A   We didn't want to hide names. In fact, if

2   you look at the names list, the first two names on the

3   list is General Odierno and General Austin.

4   Q   Who were they at the time?

5   A   They were the preceding and incoming USFI

6   commander. So the four star generals in charge of the

7   theater of operation inside Iraq.

8   MAJOR VON ELTEN: Retract the exhibit.

9   BY MAJOR VON ELTEN:

10   Q   Why didn't the public have access to the

11 NIPR GAL?

12   A   You don't want public assess to your GAL.

13 It's not a -- because of the information that's in

14 there, I mean, I don't need anybody to have General

15 Odierno's desk number let alone contact information and

16 what groups they belong to and things like that it's a

17 security issue. It's not a public consumption piece.

18   From a technical perspective (INAUDIBLE)

19 had to have access (INAUDIBLE). The NIPRnet is not a

20 public access network regardless of what people think.

21   MAJOR VON ELTEN: Thank you. No further

```
 1    questions.
 2                    CROSS EXAMINATION
 3              BY MR. HURLEY:
 4         Q     Good afternoon, sir.
 5         A     How are you, sir?
 6         Q     I'm good.  Thank you.  Let's start here.
 7    During your direct examination with Captain von Elten
 8    you called the active directory the backbone?
 9         A     Yes.
10         Q     And the backbone is the resource intensive
11    element to this, correct, that the server space, the
12    personnel requiring, they're updating the active
13    directory and they're working with the active
14    directory?
15         A     Well, they work with all of the services.
16    When you say backbone, does the (INAUDIBLE).  So
17    it's --
18         Q     The anatomical analogy a little further the
19    active directory with it's backbone just having a part
20    of this integrated service?
21         A     I don't know if I would use that is
```

1 analogy, sir.

2   Q   It's a subset function of the active

3 directory?

4   A   It's a direct product of the active

5 directory the active directory GAL global address list

6 a couple makings of everything that's exists within

7 active directory as fast as all of my servers and users

8 within active directory. So that's where all of that

9 exists. So my exchange GAL is the direct product of

10 that.

11   Q   You can turn off the global address list as

12 part of the active directory?

13   A   What do you mean turn off, sir.

14   Q   You can just stop the function from

15 occurring if someone asked for the global access list

16 and it doesn't need to come up. That function doesn't

17 need to be performed?

18   A   Yes, you cannot allow a user access to the

19 GAL.

20   Q   But you in this hypothetical scenario you

21 would still require that server space and resource to

1 maintain the active directory?

2   A   Yes.

3   Q   Let's talk about the GAL. This is during

4 the period of your deployment, sir, and as I understand

5 it that was in February of 2009 to February of 2010?

6   A   Yes.

7   Q   The GAL was always operational?

8   A   Yes, sir.

9   Q   And you use the GAL during this time?

10   A   Yes.

11   Q   And you never had a problem with it?

12   A   No, sir.

13   Q   No one ever -- you never incurred any

14 prolonged or sustained problems with the GAL during

15 this period of time?

16   A   There's always outages across the network

17 that size, but that would be -- primary, no, the

18 (INAUDIBLE) never went down hard, no, sir.

19   Q   And you don't recall any instruction on not

20 to use the GAL, force wide, USFI wide, don't use the

21 GAL on all personnel in USFI?

```
 1        A      No, sir.

 2        Q      Now indicated there are 160,000 -- when you

 3  say there are a 160,000 user IDs on the GAL, that was

 4  when you left in February of 2010.  Is that where you

 5  pinpoint that 160?

 6        A      Yes, sir.

 7        Q      But Prosecution Exhibits 47 and 48, the

 8  disk, so there's 24,000 e-mail?

 9        A      Yes, about that, sir.

10        Q      And the same 24,000 I mean are the same

11  24,000 people are on 47 and 48?

12        A      Yes, sir.

13        Q      And that 24,000 you would agree with me

14  substantially less than 160,000?

15        A      Yes, sir.

16        Q      A point about the information on there.

17  The phone numbers that would be associated with the

18  USFI GAL would be DSN numbers, correct?

19        A      Not all of them, sir.

20        Q      Some would be DSN?

21        A      You also had commercial cell phones.  You
```

1 also had (INAUDIBLE) phone numbers that were tied to

2 Iraqi commercial land lines that there would have been

3 access to that.

4   Q   (INAUDIBLE) VOIP.

5   A   Yes, sir.

6   THE COURT: What is VOIP.

7   THE WITNESS: Digital voice.

8   BY MR. HURLEY:

9   Q   Just a moment. You said the active

10 directory performs other tasks besides the global

11 address list?

12   A   Yes.

13   Q   It helps to establish shared drives?

14   A   Access to shared drives.

15   Q   And it helps with other network tasks?

16   A   Yes, sir.

17   Q   And one of the functions it ultimately is

18 to produce the GAL?

19   A   Yes.

20   Q   And the GAL there's -- I just want to make

21 sure I get these terms right. There's a GAL as a

1 whole?

2   A   That's right.

3   Q   And there's a GAL that the user pumps when

4 he says show meet GAL?

5   A   Yes.

6   Q   This wasn't your first deployment in Iraq,

7 was it, Chief?

8   A   No, sir.

9   Q   So this -- go along with this a little bit.

10 I'm just going to give you what I understand of the

11 process and you tell me where this isn't inaccurate.

12 Soldier deploys?

13   A   Yes.

14   Q   Gets to post or station or whatever?

15   A   Yes, sir.

16   Q   And then there would be a lag posted time

17 between when she gets there and her e-mail set up?

18   A   Yes, sir.

19   Q   And then eventually as we all hope and pray

20 when we're in Iraq or Afghanistan there's a period of

21 deployment ends and we redeployed?

```
 1        A     Yes, sir.

 2        Q     For a period of time the GAL will still

 3   reflect someone who has redeployed --

 4        A     Yes for a period of time.  If things are

 5   done right it's usually 24 or 48 hours.  If not we

 6   would run a script (INAUDIBLE) was inactive for longer

 7   than 90 days.

 8        Q     And that was a task that was down to the

 9   lower level communications folks making sure that the

10   24 to 48 hours?

11        A     The low level.  The upper level -- the

12   overhead piece was the script for the 90 days for the

13   (INAUDIBLE).

14        Q     The same thing for someone had who had to

15   leave in the middle of deployment never to return, you

16   would hope that the lower level communications people

17   would take them off, take them out of the active

18   directory thereby taking them out of the GAL?

19        A     Yes, sir.

20        Q     That's the process, you get put into the

21   active directory to get access to the system; is that
```

1   right?

2   A   Yes, sir.

3   Q   And once you're in the system as user you

4   can pull the GAL?

5   A   Yes, sir. It allows you to look on to your

6   machine and you have visibility or access to the GAL.

7   Q   A GAL as taken at any particular point in

8   time there would be people in country with just no

9   e-mail access set up yet, that there would be people in

10 country that just don't have their e-mail (INAUDIBLE)

11 and going to have e-mail. Do you see what I mean?

12   I just (INAUDIBLE) that period of time we

13 were talking about where my e-mail account isn't set up

14 yet?

15   A   You would have a run of personnel, yes.

16 Been there for the first 24, 48, 72 hours, maybe up to

17 a week, depending on the size of the file and the

18 competency of the staff. You can be a little

19 (INAUDIBLE) you can sit it around without access to the

20 e-mail.

21   Q   Is that snapshot that was taken on a day of

1 those individuals, wouldn't be on?

2   A   It's a possibility, yes, sir.

3   Q   And the snapshot that was taken for that

4 same day for people who redeployed but the information

5 just hadn't come off the network?

6   A   Yes, sir.

7   Q   As we look at?

8   MAJOR HURLEY: May I publish Prosecution

9 147.

10   THE COURT: Yes.

11   BY MAJOR HURLEY:

12   Q   Prosecution Exhibit 148 Bravo. Direct your

13 attention there.

14   A   Yes, sir.

15   Q   You indicated on direct that all of these

16 e-mails were Iraq centric e-mails, correct?

17   A   Yes, sir.

18   Q   Now, if I'd linked up my AKO would it show

19 it for any of these individuals?

20   A   No, sir.

21   Q   It wouldn't show it?

1   A   No.

2   Q   Would it show it to any user that was

3 accessing the GAL?

4   A   For instance, when we created your account

5 if you saved (INAUDIBLE) this or, for instance, when

6 you have an Enterprise e-mail account your Enterprise

7 e-mail account is linked to your AKO. So it's tied --

8 so if you were to look at this traffic if you were to

9 look at this screen now if you can look at (INAUDIBLE)

10 there you would see both this e-mail and that one, but

11 your usarmy.mil of this domain (INAUDIBLE) of this

12 domain unless that traffic (INAUDIBLE).

13   Q   Typically speaking when you would pull --

14 when a user woulds pull the user GAL, this is what

15 you'd see?

16   A   Yes.

17   Q   And in February 2010 you wouldn't even see

18 an AKO e-mail address up there?

19   A   No, sir.

20   Q   But now adays with mail.mil?

21   A   We did have a small number of personnel who

1   had their e-mail accounts linked, a lot of a CENTCOM

2   personnel. They had their e-mail accounts linked. So

3   you to so if you Major Hurley had CENTCOM business and

4   SFI business at the same time then we would have linked

5   both of those e-mail accounts within that.

6   Q   And it would pull them up?

7   A   It would only pull them up your Iraq

8   centric e-mail, sir.

9   Q   And at the time -- at the time and this is

10 February 2010, what we had back then were home stations

11 e-mail accounts. Let's say I (INAUDIBLE)?

12   A   The was not (INAUDIBLE).

13   Q   And this was home station e-mail address if

14 I deployed to Fort Stuart for Iraq that's not reflected

15 up here, is it?

16   A   No, sir.

17   Q   And it wouldn't be reflected in the user

18 GAL that you would pull the from Iraq?

19   A   Only if we had access to -- if we were

20 (INAUDIBLE) those other domains. For instance, if I

21 could search CENTCOM's GAL list by putting these people

1 are (INAUDIBLE) installed we had sync services with

2 those services, the same with the divisions up to the

3 (INAUDIBLE) USFI and down and they with some on syncing

4 with the (INAUDIBLE) domain for Afghanistan and quite

5 and Qatar you would be able to pull those as a user

6 within the GAL to authenticated onto.

7   Q   You would have to pull them by name or

8 would they come up?

9   A   You would have to do the search. I would

10 have to say Hurley control K and then you would have

11 gotten the guys in USFI and anybody we had in

12 (INAUDIBLE).

13   Q   Help my me understand. Correct me if I'm

14 wrong, Chief. If you had this software and it's

15 working normally once the active directory is

16 established then the GAL function can occur; is that

17 correct?

18   A   Yes, exchange pulls that GAL from active,

19 correct.

20   Q   And that's as easy as pushing as button?

21   A   From a user perspective, sir, or from a

1 actual services management.

2   Q   From a user perspective?

3   A   From a user perspective, yes.

4   Q   Any particular user would have been the

5 access to all groups inside the domain?

6   A   No, sir.

7   Q   And so the users access and the GAL that

8 they pull would reflect the domains they have access

9 to?

10   A   Yes, sir.

11   Q   So he wouldn't as the user in that he

12 wouldn't have had access to the entire user GAL?

13   A   Access and visibility, sir, that's what I'm

14 asking for access or visibility. Access, yes, as long

15 as I'm doing sync with those other domains I can search

16 and look.

17   Q   But --

18   A   But did you just do a control K and all

19 populate, no, sir. They would require elevated level

20 of (INAUDIBLE) to be able to do something like that.

21   Q   Just so I'm clear that all the resources

1 you talked about with Captain Von Elten they are

2 required for (INAUDIBLE) entirety of the operations, so

3 to build and maintain an active directory to do the

4 other functions the active directory performs as well

5 as to establish a global address list or GAL.

6   A   Yes, sir. It's in all encompassing

7 servers. (INAUDIBLE) I don't have exchange without

8 active directory or any of those other services.

9   Q   Now, you indicated, Chief, that the names

10 on the CDs they matched each other?

11   A   Right. If you were go down to them like

12 the first two on the top of the GAL General Austin and

13 General Odierno on the other two it was also General

14 Austin and General (INAUDIBLE) e-mail addresses.

15   Q   Did you compare those names or the

16 information on that CD to the global address as of May

17 of 2010.

18   Q   Did you personally do that? Did you

19 personally compare the information you were getting on

20 the CDs did you compare to it something other than what

21 was on the CDs to what you knew the global address was

```
 1   in 2010?

 2         A     No, I didn't do anything else other than

 3   (INAUDIBLE).

 4         Q     So you didn't -- logically you don't do a

 5   line-by-line comparison to those things and what was on

 6   the GAL?

 7         A     No, sir.  I could guarantee though those

 8   were both General Austin and General Odierno's e-mails.

 9   I had to deal with them on a regular basis.

10              MR. HURLEY:  Understand that, Chief.

11   Nothing further, ma'am.

12              THE COURT:  Redirect, Major Von Elten.

13                   REDIRECT EXAMINATION

14              BY MAJOR VON ELTEN:

15         Q     Chief Nixon, how many e-mails can somebody

16   send if the exchange or network goes down?

17         A     None.

18         Q     If somebody downloads the entire GAL to a

19   computer, how many e-mails can he send if the exchange

20   or network goes down?

21         A     None.
```

1   Q   When you reviewed the names on Prosecution

2   Exhibit 47?

3   A   Yes, sir.

4   Q   Do you recognize other names?

5   A   Actually, there were a couple of system

6   administrator names belonging to headquarters. If you

7   go down the list a little aways there's a special camp

8   Hosen is the list and then there's there were a number

9   of group accounts that I recognized like the catfish

10   account which was all of the air movement of the

11   theater, a couple of fire brigades (INAUDIBLE).

12   Q   Where were those people stationed tell you

13   the truth?

14   A   They were all in Iraq.

15   Q   Were they part of USFI?

16   A   Well, actually they weren't part of just

17   USFI, they were part of other organizations within

18   Iraqi as a whole. They weren't actually USFI they

19   belong to do all of Iraq different.

20   Q   Were they part of the GAL?

21   A   Yes, sir.

1   MAJOR VON ELTEN: Thank you. Nothing

2   further.

3   RECROSS EXAMINATION

4   BY MR. HURLEY:

5   Q   Downloading, if a user wanted to download

6   the GAL, was it prohibited? Let me rephrase my

7   question.

8   If a user wanted to download a GAL for his

9   brigade, was that prohibited?

10   A   Normally a user wouldn't have the ability

11 to do that, sir. You would have to do a manual cut and

12 paste process to even then it wouldn't be an easily

13 executable process without outside software. It's not

14 a user function to be able to download the GAL as a

15 whole.

16   That's why when we had the conversations --

17 do you want to specific access and visibility because

18 they're two very different things? Visibility to the

19 GAL as a whole within Iraq, yes, without a doubt to

20 actually pull down and see all of the contextual

21 information within the GAL as you were to pull down to

1   Excel (INAUDIBLE) is a very different entity, not a

2   user level access task.

3   Q   Just to make sure I've got it all, Chief,

4   there can be an active directory without a GAL?

5   A   Yes, sir.

6   Q   But there cannot be a GAL without an active

7   directory?

8   A   No, sir.

9   MR. HURLEY: Thanks.

10   THE COURT: I have a few questions. Let me

11   make sure I understand your testimony. So I have the

12   active directory which you basically have set up all of

13   the user account information goes in and it's

14   structured to I guess keep it a certain way?

15   THE WITNESS: It's just structured to make

16   sure all of my servers are able to talk to one another

17   across the network and maintain my relationships with

18   other servers in other domains. The user bill is just

19   a part of that active directory function.

20   THE COURT: So the user bill would be, if

21   I'm understanding your testimony, in an active

1   directory is structured such that users can go in and

2   with control K access certain information about people

3   who are part of the directory?

4   THE WITNESS: Yes, ma'am. The exchange

5   server. So you (INAUDIBLE) you're using Outlook, the

6   exchange server pulls that information from active desk

7   directory to present to you in a formatted that you're

8   able to digest so you're able to use that is

9   information.

10   So if you hit control K and you see you

11 and the other people with that the last name

12 (INAUDIBLE) smaller search.

13   THE COURT: Is it similar to Outlook today

14 where if you check addresses or --

15   THE WITNESS: All of that is different

16 parts of the same functionality, ma'am.

17   THE COURT: If you download say do a

18 control K and you get all of the addresses, are you

19 able to go to particular addresses when you click on

20 their names, get the properties and other things at the

21 top of the screen and then find out further information

1 about that from these addresses?

2   THE WITNESS: Yes, ma'am.

3   THE COURT: So if you push control K is it

4 like a database thing?

5   THE WITNESS: It's a quick key function,

6 ma'am, for the same thing. That's all it is. If

7 you're talking about if you bring up the two functions,

8 you start typing in names, the same thing. Control K

9 is just a quicker way to do it. That's all it is.

10   THE COURT: Any follow-up questions

11 based on mine?

12   MAJOR VON ELTEN: No, ma'am.

13   MR. HURLEY: No, ma'am.

14   THE COURT: Temporary or permanent

15 (INAUDIBLE).

16   MAJOR VON ELTEN: Temporary.

17   THE COURT: Let me make sure I don't have

18 any final questions here. I don't think I do. You are

19 temporary excused. Please don't discuss your testimony

20 or knowledge of the case with anyone but the lawyers or

21 the accused while the trial is going on.

```
 1              MAJOR FEIN:  United States requested
 2   (INAUDIBLE).
 3              THE COURT:  Court is in recess until 3:30.
 4              (Hearing recessed at 3:20 p.m.)
 5              (Hearing resumed at 3:30 p.m.)
 6   Whereupon,
 7        CHIEF WARRANT OFFICER ARMOND ROUILLARD,
 8   called as a witness, having been first duly sworn to
 9   tell the truth, the whole truth and nothing but the
10   truth, was examined and testified as follows:
11                    DIRECT EXAMINATION
12              BY MAJOR FEIN:
13        Q     You are Chief Warrant Officer Armond
14   Rouillard ruin of United States Army first IO command?
15        A     Yes, sir.
16        Q     Thank you.
17              Chief, what is your current position at
18   United States Army first IO command?
19        A     I'm the senior tech advisor for the
20   Lieutenant commander for secretary bat first IO.
21        Q     What does it mean to be the senior tech
```

1 advisor?

2   A   To advise him on anything that affects the

3 battalion mission. So one of our missions is the cyber

4 op 4 teams, and we use them to test brigades that are

5 getting ready to deploy through attack networking,

6 attack methodology. And so I'm responsible for the

7 training and maintenance of those guys.

8   Q   And is that the mission of the first IO

9 command?

10   A   Yes, the vulnerability assessment of our

11 networks for the Army.

12   Q   And I guess how broad or how comprehensive

13 is that charter?

14   A   Pretty wide. Up until very recently they

15 also managed the regional certs which are directly we

16 have those based across the United States. So we have

17 cert for conce for the United States in Fort Huachuca.

18 We have one for the southern area. So first IO manages

19 those guys and they're responsible for detecting

20 attacks or responding to intrusions or unclassified

21 spillages across networks.

1   Q   What's a cert?

2   A   Computer emergency response team.

3   Q   And is that what the first IO command team

4 does, still manages the certs?

5   A   Not any more. We assist with it, sir, but

6 that mission is passed to the Army cyber, but we're

7 still in the business of helping those guys, but we

8 also have the Army's red team, blue team, green team.

9 The guys that go out and help tactical units with

10 network assessments for vunerabilities and bring guys

11 in later to give them reports.

12   Q   And you just threw out three colors, red,

13 blue, and green. Could you explain for the Court what

14 a red, blue, and green team are?

15   A   So when a mission gets ready to deploy

16 probably about nine months out or so they stand up all

17 of their network systems and they prepare to deploy.

18 And the first team they get is what we call a blue team

19 which comes in and does an initial assessment.

20   It will assess the network, go look for

21 vunerabilities, find of them, figure out what their

1   general posture is because a lot of these systems

2   fielded from PMs and they might have default

3   configuration.

4   We go through a process where the blue team

5   comes out and does an assessment does and gives a

6   report back to the commander. After they've had a

7   little bit then maybe a month or so then a green team

8   comes out and does pretty much the same thing, will sit

9   there and help the unit configure their equipment to

10 meet the suggested configuration changes so they're not

11 in default configuration protecting them from attacks.

12   Later on probably three or four months

13 before they deploy during an MRX or a war fight or some

14 exercise they'll have the red team come out which is

15 one of the final stages and the red team will simulate

16 the enemy and try to attack their network through

17 social engineering or other cyber attack type tools and

18 then again they give a report back to the commander on

19 how effective they were, what configuration changes

20 they need. All of that happens at home station.

21   The final part of that assessment is the

1 cyber op 4 teams which 2nd battalion first IO has and

2 as the brigade is at JRTC getting ready to deploy they

3 again stand up but the commanders now in his

4 operational focus.

5   We have the op 4 guys on site simulating

6 enemy and trying to break into their systems to

7 demonstrate to the commander what the affects of the

8 cyber domain are.

9   Q   And you just used two other terms. Can you

10 explain for the Court what you mean by attacks, prevent

11 attacks?

12   A   Right. So we perform a lot of

13 vulnerability assessment, looking at the networks or

14 the configurations or of their network equipment or

15 their services or Enterprise level conversations like

16 active directory or exchange and we assess it for

17 vulnerabilities to help them defend, better help them

18 implement the appropriate configurations into their

19 systems.

20   Q   And which networks are you talking about?

21   A   Prism SIPRnet.

1   Q   What about NIPRnet also?

2   A   We do also assist with the assessment of

3 those, primarily at CTCs they only scan up the SIPRnet,

4 but the if they bring out a NIPRnet then we'll also

5 enter those.

6   Q   What is your current branch and MOS?

7   A   255 sierra.

8   Q   What is that?

9   A   It's an information protection technician.

10 So about 2008, 2007/2008 the Army realized that we had

11 this cyber domain similar to air, sea, land. We also

12 encountered a lot of combat in the cyber domain.

13   So realizing we needed to fill that defend

14 that gap the warrant officer corp assessed the signal

15 warrant assess that had we needed to provide additional

16 training to help our guys be the technical experts on

17 the ground for protecting this domain.

18   So created a 255 sierra MOS which is fed

19 from the Alphas, the 255 Alphas, the 255 Novembers

20 which are signal warrants. They're an assessment

21 process. They have IA level 3 which requires a certain

1 level of certification. They submit a resume which is

2 a, you know, a raw define skill set that they've worked

3 in the information assurance field and then their given

4 an assessment exam, and if they meet all of those

5 requirements they come to Fort Gordon to the 255 sierra

6 course and attend about six months in training on

7 network defense capability such as forensics, perimeter

8 defense, pen testing, which is that vulnerability

9 assessment from the outside trying to attack into a

10 network and looking for a way it can be exploited,

11 incident handling and other cyber domain relates

12 skills.

13   Q   And what year was the 255 sierra MOS

14 created?

15   A   Officially we started flagging warrant

16 officers at 255 sierra just this past year. We've been

17 training them since 2009 or 2010 I believe, right

18 around in that period. We started design of the course

19 in about 2008 and I was one of the guys that they

20 reached out and said, what needs to be in this course

21 because I had been working the field for a while on

1 this when we asses we kind of did a lot of broad sweeps

2 looking for what commanders were looking for, what were

3 the holes that we can fill as signal warrant officers

4 to fill that gab.

5   It's been successful to the model to the

6 point that the signal corp is now also developing

7 similar tracks for our enlisted and for our officers.

8   Q   And what was your role, or excuse me, have

9 you ever taught in the field of cyber security?

10   A   I have. So I was one of the eight

11 selected -- one of the initial instructors for the 255

12 sierra course. A lot of especially in this type of

13 field in the cyber field you have specialization.

14   So my specialization was securing Windows

15 environments and the pen testing area.

16   Q   And again what specifically is pen test,

17 not to technically, just in layman terms?

18   A   To attack or assess a network from an

19 external view kind of thing. So you're assessing that

20 network posture looking for potential ways that an

21 adversary can exploit it for their gain.

```
 1        Q       How long did you instructor, teach as a 255

 2   sierra?

 3        A       Three and a half years.

 4        Q       Are you still currently instructing?

 5        A       I do actually.  So I'm twice a year I

 6   travel back down to Fort Gordon TDY and I teach the

 7   securing Windows block.

 8        Q       What do you mean by securing Windows?

 9        A       Part of our courseware is based on industry

10   standards.  Sands is a well known corporation for

11   training in this field.  So the Army uses sands

12   training for portions of ensuring that our information

13   protection warrants are trained properly and certified

14   according to industry standard.

15              So one of the courses we have is the

16   securing Windows and preventing mallware which I'm

17   responsible for.

18        Q       And you spoke about certifications, what

19   type of certifications do you have?

20        A       I have a number of certifications.  I

21   started certifying as a system administrator.  So I
```

 1   have various Microsoft certifications in administration

 2   such as certificate 2003, 2008. I have exchange

 3   certifications for -- and all the Microsoft

 4   certifications are based on knowledge and expertise and

 5   experience for whatever you've been certified in.

 6   In the cyber field I also have six GS

 7   certifications which are the certs that we use to

 8   standardize or training for the 255 sierras and some of

 9   those would be securing Windows, pen testing, incident

10   handling, securing the perimeter and a couple of

11   others.

12   Q   And what do you mean by securing the

13   perimeter?

14   A   Securing the perimeter involves all of the

15   network type gear that would be on the external part of

16   a network. So you'd have the user part of the network

17   where a lot of computers plug in. You have the

18   services part of the network where you've got your

19   servers and your Enterprise level services such as

20   SharePoint and exchange, and then you've got the

21   perimeter with your firewalls and your intrusion

 1 | detection devices and router configuration and that

 2 | kind of thing.

 3 | Q   What were are your duties or your

 4 | assignment prior to being assigned to first IO command

 5 | at Fort Belvoir?

 6 | A   Prior to that I was an instructor at Fort

 7 | Gordon. Before there I worked at the Microsoft

 8 | security response center for a year on a training with

 9 | industry programs.

10 | So the military has a program where they'll

11 | take a green suiter, put us into a civilian

12 | corporation, and I had the luck of working at Microsoft

13 | in the place where they handle all of the zero day

14 | exploits that Microsoft works with, and a zero day

15 | exploit is something such as an exploit that they're no

16 | known patch for that vulnerability for yet and those

17 | are highly valuable.

18 | So the Microsoft security MSRC really

19 | taught me a lot how corporations deal with this threat

20 | of mallware or malicious software vunerabilities in

21 | their operating systems and how they respond to it and

 1   how about they triage it and how their teams handle it

 2   at the program manager level type of thing.

 3   Then prior to -- so walking backwards,

 4   prior to working at MSRC I've been a system

 5   administrator at the BCT in the division level since

 6   '94 and prior to that was phones.

 7   Q   What about your experience with mail server

 8   certifications or e-mail certifications.

 9   A   Since from '94 through -- 1994 through 2007

10   I ran Enterprise level services for the Army at the

11   brigade and division level. That includes active

12   directory exchange, SharePoint, update servers, client

13   management, building the local network, configuring the

14   local network. That kind of stuff.

15   The easiest way to sum that up is

16   commanders expect garrison style services in a tactical

17   environment. So that's what we provide.

18   Q   In your current capacity what echelons do

19   you currently work with within the command structure?

20   A   I'm not really sure --

21   Q   You had previously testified that you at

1   first IO command provide red team (INAUDIBLE) for

2   support. At what level do you provide that support to?

3   A   Yes, sir. Any unit that requests it. So

4   it would be anywhere from a strategic unit that's a

5   base. It could be Fort Meade would request a pen test.

6   It could be a command unit such as Army cyber. Army

7   cyber may request a pen or it could be a single brigade

8   combat team. So the scope ranges pretty wide.

9   Q   Have you deployed before?

10   A   Yes, sir. I deployed a couple of times.

11 The last two deployments were with 1st cav into Iraq?

12 2004/2005 and 2007/2008. I was one of the two senior

13 warrant officers in the G6 for the division at MNDB.

14   Q   Who what was your role during those two

15 deployments? What were your duties?

16   A   Me and my other chief we managed all of the

17 Enterprise level services and the network that

18 supported the 3,000 clients that were on Camp Liberty,

19 and (INAUDIBLE) so first deployment we managed a active

20 directory and exchange configuration for -- I can use

21 file names.

```
 1        Q      Yes.

 2        A      Camp Fagi, Camp Felton, green zone and Camp

 3   Liberty tied all of those together in a single network

 4   that spanned the wide area network across Baghdad, and

 5   then the second deployment BCTs we assisted the BCTs in

 6   standing up their own domain level services.  So we

 7   didn't have as much network traffic.

 8        Q      When you say expand the wide area network,

 9   briefly explain what you mean?

10        A      Tactical networks when we put in tactical

11   networks.  It's very similar to a commercial network

12   just a much more limited availability.  So like Fort

13   Meade is tied to Fort Belvoir across a network both

14   with phone and with data, but in a tactical environment

15   the Army has to put those systems in.

16             So we have signal assemblages through

17   satellite or on a site that will establish the

18   conductivity which introduces some unique variables

19   into signaling where we've got to manage band width a

20   lot better than in a garrison environment, but it

21   allowed us to connect -- having all of the servers on
```

1   Camp Liberty for the first deployment allowed to us

2   manage all of the users in one location rather than

3   having them scattered across (INAUDIBLE).

4   Q   Is that true for SIPR and NIPR.

5   A   Yes, sir, and CENTRIS.

6   Q   What is that?

7   A   We call it the blue network. So it's a

8   network that's higher than unclassified but lower than

9   SIPR that we share classified information with our

10 coalition partners, whoever's in that area. There's a

11 CENTRIS Iraq, there's a CENTRIS Afghanistan, there are

12 separate networks that have a certain pool of coalition

13 partners that ever access to that network.

14   Q   And earlier you said that when you set up a

15 network technically you have to be concerned about

16 limited availability. What do you mean by that?

17   A   Primarily the band width. So here to Fort

18 Belvoir in a garrison environment we have a very large

19 data pipes and it doesn't really matter what users do

20 because the network will support it.

21   In a tactical environment we try to

1 limit -- we're much more cognizant of users on the

2 network because it directly affects missions that are

3 going on. If, for instance, I've got a lot of people

4 surfing the web doing recreation browsing it may

5 directly affect the commander battle update brief or it

6 might affect a UAD theater or something else. So we're

7 very aware of monitoring band width.

8　　　　Q　　When setting up this tactical network at

9 least for NIPR, does that access to the information on

10 NIPR network?

11　　　　A　　So who has access to NIPRnet? Just about

12 ever soldier in the deployed environment who would have

13 access to the computer. Most all of the computers are

14 plugged into it.

15　　　　Q　　What is USFI?

16　　　　A　　That's when I was deployed it was the MNCI.

17 That's U.S. forces Iraq. So that's what MNCI morphed

18 into after my departure from the theater. It's

19 basically what I call the corp headquarters. So it's

20 the higher headquarters that manages all of the

21 divisions in Iraq.

```
 1        Q      When you were in Iraq in 2008, what client

 2   did MNCI use to manage e-mail in Iraq?

 3        A      They use Outlook.  Outlook is the user

 4   client that resides on the work station.  The Army has

 5   chosen to use Microsoft products for their Enterprise

 6   solutions.  So the brigade, divisions, and corps and

 7   all of them are fielded for their Enterprise level

 8   services, Microsoft server for the user management,

 9   Microsoft exchanges for the mail, and Microsoft

10   SharePoint for document sharing.  Those are the primary

11   three Enterprise level type services that you would

12   encourage.

13        Q      What is a global address list or a GAL?

14        A      The global address list is a list of all of

15   the e-mail addresses available to a user to send e-mail

16   to.

17        Q      And what networks had a GAL in Iraq?

18        A      All three of them the NIPR, SIPR, and

19   CENTRIS.

20        Q      Who had access at least to the NIPR?

21        A      Anyone who had --
```

 1   MR. HURLEY: Personal knowledge.

 2   MAJOR FEIN: I'll ask a foundational

 3   question.

 4   BY MAJOR FEIN:

 5   Q   When you were in Iraq in 2007 to 2008 who

 6   had access to the GAL?

 7   A   Anyone with access to the NIPRnet that

 8   had -- anyone who had assess to the NIPRnet that had a

 9   user account.

10   THE COURT: How do you know that?

11   THE WITNESS: Ma'am, all user accounts have

12   an e-mail address and to get access to the GAL they

13   just open up Outlook and the GAL is there.

14   CAPTAIN TOOMAN: In 2007 and 2008 was not

15   necessarily true in 2009 and 2010 which is the time

16   frame at issue.

17   THE COURT: Are you going to carry this

18   over?

19   MAJOR FEIN: I may ask additional questions

20   for foundation.

21   BY MAJOR FEIN:

1   Q   How many years have you been working with

2   Microsoft products dealing with e-mail?

3   A   Since Microsoft exchange I've got five

4   which would have been around '98, '99 I believe.

5   Q   Have you worked with you said Microsoft

6   exchange at the time 5.5 or something and it's

7   successors since then?

8   A   Yes. So 5.5 to 2000, 2003, to 2010, I'm a

9   Microsoft trainer. So I constantly work with the

10 Microsoft products. For the Signal Corp for the signal

11 warrant officers I instruct a five-day block for

12 exchange server.

13   Q   And in your current capacity or in your

14 capacity as a trainer and your capacity at first cyber

15 command do you have personal knowledge of the different

16 types of -- Microsoft Outlook and exchangers used

17 across the Army on NIPRnet?

18   A   I am.

19   Q   Including and at the time Iraq and

20 currently in Afghanistan?

21   A   Yes, sir. So the systems that the

1 brigades, divisions, and corp use is quality BCCS or

2 battle command and control system. It's a system

3 fielded by tactical battle command on all of the active

4 duty signal units that provides their Enterprise level

5 services. All of them are fielded the same.

6   We train all of the soldiers at Fort Gordon

7 on how to operate these systems. They have a general

8 consistency on how they are configured and fielded.

9   Part of that fielded is their active

10 directory configuration and exchange configuration and

11 so on, their SharePoint configuration.

12   Q   I'm sorry, Chief, was that true in 2997?

13   A   Yes, sir.

14   Q   Was that true in 2008?

15   A   Yes, sir.

16   Q   Was that true in 2009?

17   A   Yes, sir.

18   Q   What about 2010?

19   A   Yes.

20   Q   2011?

21   A   Yes.

1   Q   Today?

2   A   Yes, sir.

3   MAJOR FEIN: Your Honor, probably

4 foundation has been laid here on whether the witness

5 knows whether Microsoft Outlook was used in Iraq during

6 the time.

7   THE COURT: Overruled. So why are we

8 talking about 2007 and 2008?

9   MAJOR FEIN: Ma'am, the only reason for the

10 2007/2008 is simply to lay a foundation for Chief

11 Rouillard being qualified as an expert in global

12 address lists, their value, cyber threats.

13   THE COURT: All right. You heard what the

14 government wants to do. Are you going to object to

15 this expert or?

16   MR. TOOMAN: We are objecting.

17   THE COURT: Foundation, relevance,

18 overruled.

19   BY MAJOR FEIN:

20   Q   Who had -- who again going back to Iraq,

21 who had access to the NIPR GAL in 2010?

1   A   All personnel who worked in a staff

2   environment or needed access to e-mail for their daily

3   duties would have had access. Basically if they had an

4   e-mail address and had an active account they had

5   access to the GAL.

6   Q   Could any personal on there have access?

7   A   They could, but you would need a

8   demonstrated I need to have. So we had a large number

9   of soldiers in theater, a lot of soldiers were doing

10 other duties that didn't require e-mail. So if they

11 were on a team that kicked in doors or something like

12 that or went out constantly they wouldn't necessary

13 have an e-mail account.

14   Q   Who outside the Army or Department of

15 Defense had access to it?

16   A   To our e-mail servers?

17   Q   Correct.

18   A   Nobody.

19   Q   How is a GAL created?

20   MR. TOOMAN: Objection.

21   THE COURT: Overruled.

1   THE WITNESS: So the GAL was just a list of

2   e-mail addresses. I say just, but it's a list of

3   e-mail addresses that's created automatically when

4   mailboxes created for that user. When you go into an

5   exchange server and create a user mailbox an e-mail

6   address is created and added into a different portion

7   of the exchange server.

8   The exchange server takes all of those

9   e-mail addresses, compiles them into what's called

10 the GAL and creates a GAL for that server. In Iraq

11 or in our deployed environment or even in the

12 corporations connectors are put between different

13 exchange servers. Those exchange servers, such as a

14 brigade and its division, will then exchange a copy

15 of their GALs to keep it simple. They exchange a

16 copy of their GALs and then get one larger GAL with

17 the division and the brigade and that happens up the

18 chain so to speak.

19   So MNCI or USFI that division GAL which

20 has been build with all of the brigades in the

21 division gets replicated to the corp level and now

1 that single corp level is replicated across. That's

2 why you can sit in 2nd brigade 4ID and e-mail

3 somebody in 2nd brigade 1st cav who sit next to each

4 other but are on different servers because they

5 share a common GAL, and that's why we do it.

6   BY MAJOR FEIN:

7   Q   So your very first step you said, once the

8 user information is input, what do you mean by that?

9   A   So as certain users need access to active

10 directory or an e-mail account. When that user account

11 is created they're given an e-mail address. That

12 e-mail address for us, for 1st cav, from 2003 to when I

13 left and even now we train guys at track now we train

14 them to use the AKO mail.

15   So for instance myself my Army.rouillard,

16 instead of being at usarmy.mail is at 1CDArmy.mail. Do

17 that for a number of reasons. If I have a bunch of

18 John Smiths in the brigade that John Smith is the same,

19 I don't have to worry about deconflicting it because

20 AKO or the U.S. Army mail has already deconflicted all

21 of that.

1   So if Captain Smith id John.smith there on

2 AKO when he gets his account created in the brigade

3 server he'll be John.smith3@2BCT1ID.

4   Q   When you talk about account creation, who

5 does that?

6   A   Normally the G6 help desk or the S6 help

7 desk will do it or the tech guys, but it's most always

8 in the S6, G6 area.

9   Q   So in order to have e-mails populate GAL

10 what must a potential user do?

11   A   You must request and account.

12   Q   And then what happens with that request?

13   A   It's given to the G6 area, the help desk

14 and they either approve it or disapprove it. If they

15 approve it they create the account.

16   Q   And briefly how does an account get created

17 by that individual soldier?

18   A   So there's two parts to it because there's

19 active directory in exchange. So I have to create the

20 active directory account first which normally was our

21 help desk it would be Specialist stone was my guy. He

1 would sit down, open the terminal, open up the active

2 directory management tool and create the user account

3 from the request form that was filled out by the person

4 requesting the account.

5   It would have such things as first name

6 last name, AKO mail address, unit you've worked in, any

7 potential distribution lists you need to be on.

8   Distribution list is just a collection of

9 e-mail addresses I could e-mail quickly. So if wanted

10 to e-mail command group I could e-mail command group at

11 (INAUDIBLE) and it would go to everybody in that group.

12 So you might have a number of those.

13   So that active directory account gets

14 created so that they can log into the domain and then

15 an e-mail account is then created which creates a

16 mailbox for them and gives them their actual mail

17 address.

18   Q   So from receipt of the request form to

19 completion of an e-mail account to population into the

20 GAL, how much time is a single soldier or person

21 spending on that one e-mail account on?

1   A   If it's an individual one, probably 10, 15

2   minutes from the time they get the form to filling out

3   all the information to it populating. There are

4   automated tools that allow us to do that that sometimes

5   we'll prep before we deploy so we'll have spread sheet

6   with a bunch of information already filled out and we

7   can input it all at once, but historically it's been

8   easier for us just to get the forms, fill it out from

9   the form and put it in.

10   Q   What other resources other than the

11   soldiers or civilians you just spoke about are required

12   to create the GAL?

13   A   The soldiers work station in the help desk

14   area that he's working on, the software that's running,

15   and then the server resources that the account is being

16   created.

17   Q   And again briefly what do you mean by

18   server?

19   MR. TOOMAN: We'll object on --

20   THE COURT: Overruled.

21   BY MAJOR FEIN:

1   Q   And, in general, what are the different

2 types of exchange server resources you're talking

3 about? Please explain for the court?

4   A   So to run a server you have the physical

5 box or the server itself. There's the power that

6 supports the server. There's the room that the server

7 has to sit in. There's the air conditioner that you

8 have to buy to cool the servers, the network cabling

9 all has to be built, network configuration, that has to

10 occur to allow the servers to talk, and then there's

11 also the update, the security configuration and all the

12 management of that server.

13   BY MAJOR FEIN:

14   Q   And when you talk about management of the

15 server, what do you mean?

16   A   Anything from daily backups to reviewing

17 logs for potential problems. With e-mail servers

18 specifying you'll have -- if you type an e-mail wrong

19 it will hang in the queue, and with tactical networks

20 that's an issue because it's trying to send out these

21 mails and it's bouncing against the queue so it chugs

1   it up.

2   So you'll go in and check your queue, make

3   sure your queues are clear, make sure somebody is not

4   sending out the 10 meg powerpoint slide, that kind of

5   thing. So somebody will periodically go in there and

6   review the outbound or the inbound queue or see if

7   there's any trouble.

8   Q   Specifically what about for the GAL

9   before -- I'm sorry, let me ask you this.

10   How do you separate the resources either

11   physical resources, equipment, or the soldier resources

12   from operating and maintaining and creating the GAL

13   versus everything else you've just talked about the

14   active directory and the other portions of Microsoft?

15   A   Corporations have separated that pretty

16   well. They'll have active directory administrators.

17   They'll have exchange administrators. They'll have

18   very narrow lanes. For the Army we have a much more

19   limited pool especially at the brigade and division

20   level. So we train our guys how to do everything which

21   gives them a much wider scope of authority, but their

1 workload increases which is okay because we work 12 to

2 14 hours a day, especially deployed. So we don't care,

3 but the same guy that creates the e-mail server account

4 will create the active directory account, will also go

5 in and set up the client's work station. So it may be

6 one guy from receiving that request all the way to

7 configuring the e-mail client.

8   Q   And going back to you testified just a

9 moment ago about deconflicting issues, powerpoint

10 slides that might be too big. About how much time does

11 typically is a soldier dedicated to those tasks

12 spending just to maintain the GAL?

13   MR. TOOMAN: Objection, personal knowledge.

14   THE COURT: Overruled.

15   THE WITNESS: So maintain the local GAL is

16 relatively easy 15, 30 minutes a week that you go in

17 and check it. As soon as you take that address list

18 and connect it to somebody else such as another brigade

19 or division or a corp or something now you have an

20 expediential growing scope.

21   A lot of what we saw happen was

1 duplicating e-mail addresses because as long as

2 everyone put them in sequence everything stayed the

3 same and you only had one copy, but if two brigades,

4 for instance, connected to each other and shared the

5 same GAL, if this brigade and this brigade are

6 sitting right next to each other and they are put a

7 connector in without direction from division, the

8 GAL gets replicated twice and now you have duplicate

9 accounts and somebody has to go through and clean

10 that up and trouble shoot it.

11   For us 1st cav we spend anywhere from

12 three to six hours a week working on GAL or address

13 list type issues.

14   Q   And that's just at the division

15 headquarters?

16   A   Yes, sir.

17   Q   And you said local GAL, what about at the

18 brigade headquarters?

19   A   So brigade would be the local GAL.

20 Wherever the local server is. So when I say GAL I more

21 mean the entire address list that's been shared between

 1 more than one server. Technically it is correct to

 2 call a single address list on a single server a GAL,

 3 but the GAL normally infers that you have a much larger

 4 address book than just your addresses.

 5   Q   How many exchange servers were there in

 6 Iraq in 2010?

 7   A   In 2008 there was a large number. I'm not

 8 sure in 2010.

 9   Q   Is an exchange server common at the brigade

10 level?

11   A   Yes.

12   Q   And since when has it been common at the

13 brigade level, what year?

14   A   At least 2004.

15   Q   2004 or 2005?

16   A   When we started fielding the brigade, the

17 BCCS, the battle command and control systems. Those

18 were fielded to fill that gap for the requirement for

19 commanders to have e-mail servers in the field because

20 what they found was that commanders were deploying and

21 they weren't able to e-mail because the network --

1   originally they would deploy with the concept of we'll

2   use the AKO servers and try to use that.

3   When we try to use Enterprise e-mail now we

4   come into issues over the web. So instead of trying to

5   force commanders to talk to their people that worked in

6   their unit across AKOs, the commanders were having

7   their S6s and G6s stand up e-mail servers. The Army

8   saw that, saw the need for it so that's why they

9   fielded the BCCS systems for the brigades.

10   I believe that started occurring officially

11   at about 2004 or 2005 but I know that as early as 2003

12   all the brigades in the Baghdad area had e-mail

13   servers.

14   MAJOR FEIN: The United States offers Chief

15   Rouillard as an expert in both GAL systems and their

16   values and cyber threats to the Army networks.

17   THE COURT: Yes.

18   MR. TOOMAN: We would object to Chief

19   Rouillard being qualified as an expert in valuation.

20   If we have the opportunity to voir dire? I have no

21   objection to Chief Rouillard being called as a expert

```
 1   with respect to the GAL generally nor do we have an

 2   objection to him as an expert in cyber security.

 3              THE COURT:  Let's assume you're finished

 4   with your foundation, are you going to allow the

 5   defense to voir dire on the value point briefly.

 6              MAJOR FEIN:  Yes, ma'am.

 7                 VOIR DIRE EXAMINATION

 8              BY MR. TOOMAN:

 9       Q    Chief Rouillard?

10       A    How are you, sir?

11       Q    Chief, you spoke a little bit about a lot

12   of the computer training you had on direct and you also

13   spoke about, you know, a lot of the certifications you

14   have.

15              Have you received any intelligence training

16   like MI training?

17       A    I have not.

18       Q    Have you received any training on how one

19   would go about valuing something?

20       A    I'm not really sure I understand.

21       Q    Have you gone to any courses where you were
```

1   instructed on how you would go about assigning value to

2   a thing?

3   A   As an officer?

4   Q   As an officer, as a civilian.

5   A   As an officer we evaluate the value of

6   things pretty regularly I'm not really sure -- no

7   official training other than warrant officer training

8   as an officer in the United States Army. They've

9   taught me to assess the value of something and then we

10 have yearly training on general evaluation of things

11 and their value.

12   Q   What does that training involve actually

13 before I ask you that, what sorts of things do you

14 assess for value?

15   A   For instance, like risk assessment type

16 stuff. We all Army officers, all Army personnel go

17 through the risk assessment type methodology on how to

18 assess risk assessment.

19   Q   So you look at assessing risk. Have you

20 had any instruction on how to assess a monetary value

21 on something?

```
 1       A      No, sir.

 2       Q      Do you have any specialized knowledge in

 3  economics.

 4       A      I do not?

 5       Q      Understand.  Economics.

 6       A      I do not.

 7       Q      Have you taken any courses in economics?

 8       A      One on two basic college level courses but

 9  not -- I think I took -- it was a while ago.  So not

10  specifically no, sir.

11       Q      So maybe like introductory level Microsoft

12  economics and Macro economics?

13       A      Yes.  I'd have to go back and look at my

14  transcript.

15       Q      Have you ever -- of course we need to keep

16  all of this unclassified and I wouldn't ask you to

17  respond in any way that would elicit classify

18  information.

19              Have you ever bought e-mail addresses?

20       A      I have had not.

21       Q      Have you ever sold e-mail addresses?
```

```
 1        A     I have not.
 2        Q     Have you ever attempted to buy an e-mail
 3   address?
 4        A     I have not.
 5        Q     Have you ever attempted to sell an e-mail
 6   address?
 7        A     I have not.
 8        Q     Have you ever before this case been asked
 9   to assess the value of e-mails?
10        A     No.
11        Q     Have you ever before this case been asked
12   to determine the value of anything?
13        A     No.
14        Q     Monetary value?
15        A     No, sir.
16        Q     Have you done any sort of studies with
17   respect to how various factors affect the value of
18   something?
19        A     No, sir.
20        Q     So nothing on supply or demand?
21        A     No.
```

1   Q   Or the nature of information?

2   A   No, sir.

3   Q   And how that might contribute to value?

4   A   No.

5   Q   In your Army experience have you ever

6   assessed anything for value, looked at and said this is

7   worth this amount.

8   A   Monetary value?

9   Q   Right.

10   A   No, sir, other than like with our field

11 with servers as they get nearer to life cycle

12 replacement or something of that nature, we do an

13 estimates value of that server. We've had it for three

14 years. It's more cost effective to replace the. That

15 type of depreciation value, but nothing fine night and

16 accurate.

17   Q   Okay. And you were asked to evaluate the

18 value of the e-mails, the GAL e-mails, that are

19 implicated in this case?

20   A   Yes.

21   Q   Without saying what determination you came

1 to, how did you come to that determination?

2   A   So open source intel e-mail address list

3 are for sale on the Internet. So there's actually two

4 vaults, monetary value and then the threat value.

5   Q   Okay.

6   A   The monetary value, because I don't have

7 prior knowledge and I know not in the business of

8 buying or selling e-mail addresses simple binge or a

9 Google search turns up a number of e-mail addresses

10 available for sale. You can go here to by e-mail

11 addresses or there. So you could do a comparative cost

12 to valuation based on that since it's all open source.

13   Q   Do you know if that is a common way to

14 value e-mail addresses?

15   A   I don't know. I don't sell e-mail

16 addresses.

17   Q   Do you know if that method of determining

18 value has ever been reviewed, peer reviewed, subject to

19 peer review?

20   A   I do not. If I had a list of e-mail

21 addresses that I wanted to sell I would contact that

1   site and see how much they want to pay for them which

2   they advertise on their site.

3   Q   When you visited those websites, I guess

4   when did you visit those websites?

5   A   Being asked for this case. When I had

6   discussions with you and when I was being consulted on

7   the value of the GAL, because to me the value of the

8   GAL is much more because I protect our networks the

9   value of the GAL is much more important is what

10   somebody can do were that data be than just selling it.

11   Q   I know you said that it was after this

12   started, do you recall a year or my when you did those,

13   conduct the those Google searches.

14   A   I believe the first one I did was -- I'm

15   trying to recall when I first came and saw you. Was

16   that October/November, that time frame. I honestly

17   don't remember. Whenever I first sat with you is the

18   first time and then I've looked a couple of time since

19   then, and then as recently as this morning.

20   Q   Would you say within the past year was when

21   you ever looked it up?

```
 1        A      Yes.

 2        Q      Did you contact any of those sites?

 3        A      No, sir.

 4        Q      Do you know if those sites have ever

 5   actually bought an e-mail address --

 6        A      I don't know for a fact.

 7        Q      Do you know if they've actually sold an

 8   e-mail address to a person?

 9        A      I don't know for a fact, no, sir.

10             MR. TOOMAN:  One moment.  Your Honor, we

11   have no further voir dear questions but if I may just

12   layout or objection.

13             THE COURT:  Go ahead.

14             MR. TOOMAN:  We would object based on to

15   MRE702.  I don't believe that the witness will testify

16   based on sufficient facts nor do we believe Google

17   searches other products of reliable principals and

18   methods of valuation.

19             Also I believe those Google searches

20   would be hearsay.  Anything that Chief Rouillard

21   would testify about regarding those e-mail serves
```

1 would be hearsay so MRE073 we would suggest those

2 would be exclude since they are unlikely to be

3 relied upon by valuation experts who do this as

4 their business.

5   THE COURT: Thank you. Major Fein, can I

6 ask why you didn't elicit some of these things before

7 setting up your foundation?

8   MAJOR FEIN: Absolutely, ma'am. The reason

9 some of this was not simply because the United States

10 was offering him as a cyber threat expert to talk about

11 the second prong of what Chief Rouillard, defense

12 didn't ask about, which is there's two different

13 sources for him to evaluate the GAL. The defense

14 didn't elicit the second source. They only elicited

15 the first source which is open source.

16   THE COURT: Am I assuming you want the

17 second source and not the first source results?

18   MAJOR FEIN: The second source, Your

19 Honor based off of since it's mid 1990s and his

20 experience in this field and what this information

21 and how it's used.

 1   THE COURT: Are you proposing to ask

 2   further questions in laying the foundation?

 3   MAJOR FEIN: Yes, ma'am.

 4   THE COURT: You said there's two

 5   different ways to evaluate value. What are those

 6   ways.

 7   MAJOR FEIN: May I ask the witness because

 8   he didn't actually answer the question.

 9   THE COURT: Go ahead.

10   DIRECT EXAMINATION

11   BY MAJOR FEIN:

12   Q   Chief, the two sources that you would

13   evaluate the value of e-mail addresses?

14   A   There's the monetary value that if you sell

15   it on the open market or you sell it to a commercial

16   entity or a corporation looking to do the span mail

17   type thing, that's normally not what the Army focuses

18   on.

19   Much more dangerous to us, has the Army or

20   as the government, is the ability to use those e-mails

21   to targets individuals in the military with those

1 e-mails. So using this specific -- can I use this

2 specific address list as an example, the 2nd Brigade

3 10th Mountain?

4   Q   Yes, not using laptops.

5   A   That address list, for example, is a group

6 of military members who work on Fort Drum who are on

7 the deployment. So if I was an adversary of U.S. Army

8 and I wanted to target a group of individuals and I had

9 those e-mail addresses I could, for instance, pretend

10 to be -- I could craft what we call a spear fishing

11 e-mail which is a targeted fishing e-mail.

12   So you have fishing and then you have spear

13 fishing. So the fishing e-mail is just a blanket send

14 out a bunch of e-mails, I hope somebody clips a link or

15 a responds back a spear fishing e-mail is much more

16 targeted and has a higher probability of the user

17 interaction or user response or user click.

18   So if I craft, for instance, a 2nd brigade

19 10th mountain using this GAL list and the e-mail says

20 I'm from PAO on Fort Drum and I'm looking to award five

21 trips to Disneyland and 20 one hundred dollar gift

1 certificates, fill out the enclosed PDF and send it

2 back to me.

3   Many soldiers that are inexperienced click

4 that link, open the PDF, and fill out the PDF and send

5 it in.

6   Q   Is that typically, are those spear fishing

7 endeavors typically done for profit?

8   A   They can. And, again, the profit part

9 isn't necessarily what Army network defenders focus on?

10   THE COURT: Yes.

11   MR. TOOMAN: We would object based on under

12 602 personal knowledge of spear fishing.

13   THE COURT: How do you know about all of

14 this?

15   THE WITNESS: Through my information

16 protection technician training.

17   THE COURT: Overruled.

18   THE WITNESS: Actually, to further answer

19 that we're trained specifically on using spear fishing

20 campaigns. So part of the cyber op 4 mission as we go

21 to attack or simulate the enemy at the CTCs we use

1 spear fishing campaigns against the brigades that are

2 in the JRTC to try to get them to come to our website

3 and click our links and install our mallware.

4   So the enemy uses a similar tactical.

5 So that pretending to be the PAO he could target a

6 very -- he cold send out this e-mail campaign

7 against a very targeted group of individuals who

8 we've seen even today still click the links even

9 though whenever yearly training and the user

10 agreement they signed every year and all of the

11 other training we give them, users still click link,

12 and that's why we use this is to highlight when you

13 click these links this is what happens because

14 ultimately until commanders see the affect on it's

15 cyber stuff they don't want to mess with it.

16   If they see the affect of my G1 or S1

17 lieutenant click the link as part of the spear

18 fishing, her box was promised compromised and now

19 somebody stole the alert roster with names and

20 social security numbers.

21   BY MAJOR FEIN:

 1   Q   What experience other than the way you've

 2 explained quickly for the Court, do you have with spear

 3 fishing?

 4   A   So training. I was trained during the 255

 5 sierra course and then also one of our methods that we

 6 use now with our cyber op 4.

 7   Q   And again what is the ultimate goal of

 8 spear fishing?

 9   A   To elicit a response out of who I send it

10 to. So it could either be financial or it could be

11 compromise of that system.

12   Q   What do you mean by compromise of the

13 system?

14   A   If I can convince a user or if someone with

15 malicious intent can convince a user to click a link

16 and visit my website that I control, I can then install

17 a program on their machine because the user clicked the

18 link, it will grab the file installs on it their

19 computer and then opens a connection back up to my

20 machine.

21   When it does that with my machine listening

1 I can then connect back to their machine with their

2 user credentials because they clicked the link it give

3 me access into their box as if I was them.

4   Q   And then you mentioned financial. What do

5 you mean by that?

6   A   So I could be just trying to rip you off,

7 so to speak, fill out this link and send me $25 to

8 enter the raffle for the PAO five Disney vacation give

9 aways or something like that of that nature.

10   Q   And in your experience in the last more

11 than ten years of dealing with Microsoft's exchange

12 e-mails and cyber threats, have you seen those types of

13 spear fishing e-mails for financial gain?

14   A   Absolutely, on our systems, yes. I

15 couldn't give you specific examples, but we have gone

16 through and the mail systems that the Army, the

17 exchange mail systems usually we sit those behind

18 what's called a SMTP gateway.

19   We'll have a server in front that's

20 filtering a lot of the spam stuff. It's just another

21 configured mail server type of clients that gets the

1 mail before it goes to the mail server. That will stop

2 a lot of the generic, hi, I'm your uncle from

3 Yugoslavia, send me $200 now for $500,000 later.

4   That's why Army systems don't get that

5 because we have very good spam filtering systems in

6 place on the garrison network.

7   Target or spear fishing is much harder

8 because now you have a -- first you have a much lower

9 list that you send out, but second it's targeted so

10 you're saying to a clear define list that's again

11 military personnel, 2nd brigade 10th mountain from Fort

12 Drum. So it bypasses a lot of security that's not

13 normally set to filter that. It's not normally in the

14 subscription process that the spam filter will stop

15 that.

16   Q   And approximately how many years of

17 experience do you have with these types of spear

18 fishing e-mails that elicit money or ask for money?

19   A   Spear fishing has been around since e-mail

20 I believe. So at least since 1995.

21   Q   How often since 1995 have you had this

1 firsthand knowledge experience with these types of

2 e-mails?

3   A   In my personal mailbox or --

4   Q   In your official capacity --

5   A   As far as protecting against them, since

6 first Iraq deployment with 1st cav, about 2003 or 2004,

7 and I became responsible for the mail receivers at 1st

8 cav. That's where we focused on protecting our users

9 from spam mail; but, again, the more serious threat for

10 Army guys was people clicking the link or downloading

11 the mallware or someone who was not pleased with the

12 United States trying to exploit our military systems.

13   Q   Mentioned spear fishers and those, could

14 you -- what are the other groups of people or

15 individual groups that would use e-mails from the

16 United States government?

17   A   So part of our 255 sierra training we kind

18 of evaluate the different what I call buckets of

19 threat, and you'll have everybody from -- starts out at

20 the lowest level, and we use this for our training

21 model basically. So as we do our op 4 mission this

1 mirrors very closely.

2   You'll have the low skilled guys or just

3 generally displeased with the government, they might

4 have a blog page or something and say we don't like the

5 U.S. So if they had list they might try to low key

6 general spanware to the whole list. You might have

7 more elite hackers groups like anonymous potentially

8 could use it and then all the way up to nation state

9 actors that would wish us harm.

10   Q   What do you mean by nation state actors?

11   A   So any other country that's attempting to

12 compromise military networks to -- I'm trying to stay

13 in bounds, but military -- different countries that are

14 trying to compromise military networks to steal our

15 intellectual property.

16   So as an example if I was in a country that

17 didn't like the United States and I could get a

18 contractor that worked on a government project to click

19 on a link that would give my access to his box I could

20 have complete access to that contract project that he

21 was working on. So it's not just military, but also

1 everybody that supports us.

2   Q   What about corporations or other corporate

3 actors trying to obtain lists?

4   A   The corporate actors would probably fall

5 into more of the financial gain. My experience, I

6 haven't seen Microsoft trying to take over Army

7 systems, but if they were looking to sell X-boxes to

8 soldiers coming back or Ranger Joe.

9   If Ranger Joe common military website that

10 sells military type gear. If you wanted a targeted

11 audience, if he had this global address list of you

12 know majorities Army guys then he has a much better

13 chance of getting somebody to go to his website, so to

14 speak.

15   MAJOR FEIN: Your Honor, United States

16 renews it's move to the Court to qualify Chief

17 Rouillard as an expert in evaluating e-mails -- really

18 the global address list, Your Honor, not the e-mail.

19   THE COURT: That's different than what you

20 originally asked for, you said value?

21   MAJOR FEIN: Yes, ma'am, the value of the

1   global address list.

2   THE COURT: 128 (INAUDIBLE) is anything

3   other than money?

4   MAJOR FEIN: No, ma'am, it's the different

5   markets on how the money and how that valuation is done

6   through the buyers market, thief market, and United

7   States would argue that Chief Rouillard is at least the

8   defense argues that he has assumption on buyers market

9   based off of known ways because he went on Google and

10 looked, but differently in a thieves market as far as

11 his experience with over more than ten years of getting

12 e-mails saying click here how much they're paying and

13 where the sources of those e-mails come from, that

14 would be the authority, Your Honor, or at least

15 (INAUDIBLE)

16   So it's not -- United States is not

17 arguing that value is measured in dollar amounts.

18 We agree with that. It's how it could be measured

19 to determine that dollar amount and United States

20 offers that Chief Rouillard's opinion on that is

21 expert opinion based on his qualifications and

1 experience could aid the Court in understanding its

2 monetary value.

3   THE COURT: Here's what I'm going to do.

4 You have the witness on the stand, I'm going let you go

5 ahead an finish your questioning. I want the

6 government to provide me with authorities for how value

7 is measured. Defense you've already given me

8 something, but you can supplement me with something

9 you've given me in thieves market and I will decide

10 based on those admissions whether I accept those or

11 not.

12   MR. TOOMAN: The defense would request

13 first to --

14   THE COURT: You can do it on cross

15 examination.

16   MR. TOOMAN: Okay.

17   MR. TOOMAN: Okay.

18   MAJOR FEIN: Ma'am, for purposes of a

19 pending objection United States move into the opinion

20 testimony because the United States intends to elicit

21 factual testimony after that.

1   THE COURT: You're eliciting the opinion

2   and your going to move on to something else?

3   MAJOR FEIN: I'll notify the Court exactly

4   when I'm moving on.

5   THE COURT: Okay.

6   BY MAJOR FEIN:

7   Q   Chief Rouillard, based off of your

8   experiences with spear fishing, how much does a foreign

9   adversary, how much would they pay for blocks of

10   e-mails you discussed earlier like 210 Mountain?

11   MR. TOOMAN: We'll object based on hearsay

12   and 7503.

13   THE COURT: I've already said I'm going

14   listen to the them and decide afterwards. You can put

15   down in the brief that you'll be filing.

16   THE WITNESS: Repeat the question. I'm

17   sorry.

18   BY MAJOR FEIN:

19   Q   Based on your experience with spear

20   fishing, what is your opinion on how much a foreign

21   adversary would pay for a blocks of e-mails like the

1 210 Mountain e-mail block you explained earlier?

2   A   So honestly monetary value is hard for me

3 to assess. However, it's one of the top three to five

4 documents that I would seek from an adversary.

5   So a lot of -- one of the first things we

6 do in the -- as your trained in the cyber attack

7 methodology, one of the first things do you is gather

8 intel or open source intel and as you do that you might

9 visit their websites and gather the e-mail addresses

10 that they have on their websites or information they

11 have.

12   So, for instance, if I was interested in

13 Army cyber I would go to Armycyber.usinternetmail and I

14 would look at who is the commander, what his bio reads,

15 and that's why all of those public facing documents go

16 through a very stringent examination by PO to make sure

17 none of that information being released to the public

18 is detrimental or dangerous.

19   With a list of addresses that are specific

20 to that unit especially with reference to this GAL

21 list, in 2010 the other threat was the first part of

```
 1   that e-mail address was their user account.

 2             So not only is it their e-mail account, but

 3   because we were not doing the smart card log in

 4   (INAUDIBLE) it was also their user login.  And so all I

 5   have to have was their password to login as that user.

 6             For value it's when I train my cyber op 4

 7   guys I tell then this is one of the top things you

 8   want.  Also one of the first things we look for because

 9   that's our normal attack methodology is you send out

10   some type of spear fishing e-mail to get the user to

11   click on that link to either visit or website or

12   install or mallware.

13             MAJOR FEIN:   Your Honor, may I have a

14   moment?

15             THE COURT:  Yes.

16             MAJOR FEIN:  To make easier, the United

17   States withdraws qualifying Chief Rouillard as an

18   expert in the GAL evaluation.  The United States will

19   not ask any further opinions of Chief Rouillard on that

20   topic?

21             THE COURT:  You want me to disregard what
```

1 we've just heard?

2   MAJOR FEIN: Yes, ma'am. The United States

3 is going to elicit similar testimony, just fact

4 basis -- frankly, Your Honor, the witness did not give

5 the actual value. So, yes, the Court will disregard

6 that.

7   THE COURT: You want the Court to the

8 disregard everything following Captain Tooman's

9 questioning (INAUDIBLE)?

10   MAJOR FEIN: Yes, ma'am.

11   THE COURT: It's done.

12   MAJOR FEIN: Your Honor, court reporter

13 Prosecution Exhibit 147 Bravo and 148 Bravo.

14   BY MAJOR FEIN:

15   Q   Chief Rouillard, I'd like to go back to the

16 GAL itself.

17   A   Yes.

18   Q   The creation and maintenance. Earlier you

19 testified about -- you testified about the number of

20 soldiers in and hours that soldiers spend on the

21 creation. What is a typical range of that soldier who

 1   creates entries into the GAL?

 2   A   For us normally it was a specialist up to

 3   junior NCO at the help desk.

 4   Q   And that was at the division?

 5   A   That was at the division, brigade very

 6   similar. They just had less people, and for the

 7   creation of important accounts like I didn't want my

 8   general's account screwed up so would I see it, but in

 9   general the help desk managed it just fine.

10   MAJOR FEIN: Your Honor, permission to

11   publish Prosecution Exhibit 147 Bravo?

12   THE COURT: Okay.

13   BY MAJOR FEIN:

14   Q   Chief Rouillard, do you recognize this?

15   A   Yes, sir.

16   Q   What is it?

17   A   This is the portion of the GAL that was on

18   the disk that I looked at earlier. This is the user

19   name -- these are the standard type text we would have

20   on the end of the GAL. So as you were searching

21   through if you didn't necessarily know the name you

```
 1    would have other information.
 2              So, for instance, from the first line you
 3    can tell that John worked, he was a master sergeant and
 4    he worked at MFI.
 5         Q    Okay.
 6              MAJOR FEIN:   Your Honor, permission to
 7    publish 148 Bravo?
 8              THE COURT:  Go ahead.
 9              BY MAJOR FEIN:
10         Q    Chief Rouillard, do you recognize this
11    document?
12         A    Yes, sir.
13         Q    What is this?
14         A    This is another portion of that GAL
15    extract.  This is actually -- it appears to be have
16    been extracted from the exchange server itself because
17    of the first part where it says first administrative
18    group recipients.  That's similar to active directory
19    because active directory and exchange kind of installed
20    together.
21              The primary important part here is the last
```

1　part of that.　For instance, John.Iraqcentcommill.　So

2　John.black@iraqcentcommil would have been his e-mail

3　address.

4　　　Q　　When forces rotated out of Iraq, what

5　happened at this point to their GAL entry?

6　　　A　　Probably 30 days prior would he would start

7　coordination -- the short answer is that their

8　addresses would come out of the GAL relatively quickly

9　because we didn't want expired e-mail addresses out

10　there or duplicates.　So as these guys were rotating

11　out within a couple of weeks the higher ups -- so if it

12　was a division or MF or USFI would delete their portion

13　out of their exchange server so it wasn't replicated

14　around.

15　　　Q　　And from a cyber threat perspective what

16　potential threats are there with this information being

17　released?

18　　　A　　So just this information, if this is active

19　right now I can tell user names, then I just need the

20　password.　I can also tell what server they're on.　So

21　that there is the server that they're on.　So Iraq

1 CENTCOM mill because it's connected to the unclassified

2 network on the NIPRnet, I can get to that server from

3 anywhere. I can get to that from anywhere in the world

4 because that's how we designed them.

5   I can target let me dot black on that

6 server, but this also tells me the different servers

7 that they're on. So you can look down towards the

8 bottom where that you have NMDB. That's a user off of

9 a different server, and you can then use like a basic

10 script and break all of these portions up into

11 different groups of people. So now I know which server

12 they exist on.

13   Q   If someone has rotated out of theater after

14 this left possession of the government and how else

15 could it be used to further foreign adversaries and

16 spear fishers endeavors?

17   A   Because our standard operating procedure

18 for all of our signal guys we teach to use your AKO

19 e-mail address. The first portion pulls an address

20 deconfliction (INAUDIBLE) I could take tracy.black or

21 zachary.black and just do at usarmy.mil and that's

1 their AKO e-mail address or their mail.mill address and

2 I can still use a similar spear fishing campaign to

3 target you.

4   So if I knew you were in 10th Mountain or

5 NMDB at the time we're looking for all personal that

6 were assigned to MNDB between 2009 and 2011, please,

7 reply by filling out there for your unit's, your

8 meritorious unit accommodation, fill out this the basic

9 information and so that would be another example of a

10 spear fishing technique because it's relatively easy to

11 craft, falsify the source, say it's coming from Army

12 PAO or something. That's a relatively easy technique.

13   I connect to a mail server. I can stand up

14 a mail server, create whoever I want to send this out

15 with small PDF or a mutual website please connect to

16 this website, put your information to ensure you get

17 this certificate of participation in the Iraqi

18 campaign.

19   Q   So can you explain though this is showing

20 you used the example, and, for the record, Chief

21 Rouillard underlightened the second line from the top

1   underlined CENTCOM.mil in the third line from the top.

2   Could you please explain using the same one

3   how one uses dot blackbox and Iraqicentcom.mil to do

4   that after someone has rotated out of theater?

5   MR. TOOMAN: Okay, based on relevance.

6   This line of questioning will be in more on line with 7

7   (INAUDIBLE) defense would not (INAUDIBLE) what's not

8   relevance for this.

9   MAJOR FEIN: Your Honor, the United States

10   is offering this as relevance is to value as a fact

11   witness. This goes directly to what could potentially

12   happen and the United States intends to call Mr. Louis

13   who is going to talk about foreign adversaries and what

14   they do with our contact information and e-mails.

15   MR. TOOMAN: We would object based on 701.

16   If we're talking about value, this type of value would

17   require specialized knowledge under 701 is not an

18   expert and this --

19   THE COURT: Overruled. Go ahead.

20   BY MAJOR FEIN:

21   Q   So to re-ask the question. You testified

 1 that lena.blackbox, last name at iraqcentcom.mil,

 2 that's the e-mail that's listed in this GAL. How does

 3 that e-mail, how can that e-mail then used by foreign

 4 adversaries or spear fishers because that's the Iraq

 5 e-mail when they rotate out that e-mail no longer

 6 exists?

 7   A   But the first half of that e-mail we've

 8 discussed is the same for your U.S. Army e-mail

 9 address. So I could even do it in a script. I could

10 take this entire --

11   Q   What do you mean by script?

12   A   A simple text file. So scripting language

13 is a way to automate tasks, and like, for instance, a

14 python is one of the languages you can use to script.

15 I can take an input file, I can extract certain fields.

16 So I could say extract everything after slash CM

17 equals. It extracts that address, strip off the Iraq

18 CENTCOM mil and paste in at U.S. Army mill and you can

19 actually automate this, but you can just as easily go

20 in and hand craft it and change any of these e-mails

21 addressed to at usarmy.mil and have a high likelihood

1 of having their e-mail address if they're active now,

2 if they're in the active duty now.

3   Q   And why would foreign adversaries want the

4 GAL?

5   A   To target military personnel to get them to

6 click the links.

7   Q   And you mentioned earlier social

8 engineering. How would social engineering (INAUDIBLE)?

9   A   So first I find an audience that I want to

10 target an adversary, and for this instance I'm using

11 Army. These are all Army people or Army affiliated

12 personnel.

13   So I send an e-mail with a web link or a

14 PDF or something similar to that e-mail address.

15   THE COURT: Yes.

16   MR. TOOMAN: Your Honor, I think it goes

17 beyond the scope of laying a factual foundation. I

18 would object to 701.

19   THE COURT: Overruled.

20   Go ahead.

21   THE WITNESS: So the user would then

1 receive the e-mail in their box. It could appear to

2 come from anybody you'd want it to come from. They see

3 this e-mail comes in. It could be, for instance, we're

4 evaluating -- I saw on the early times we're evaluating

5 to go to a new single will ACU pattern. So it would be

6 this at this the site for selection of five ACU

7 patterns and we're just doing a public survey to see

8 which one you would like, and it would come from a PAO

9 or a civilian company.

10   So many soldiers would then click that

11 link taking them to a website which might actually

12 have five different patterns of ACU to select and

13 then they click on one, it says thank you, insert

14 name here, give some type of actual account back,

15 but it's also collecting information on the machine

16 that they're on. It would attempt to download

17 malicious codes into their box. It could a number

18 of things because I've tricked you to go into a site

19 which you would not normally visit which is why we

20 invest so much in the yearly mandatory training for

21 this type of attack.

1   Q   Are you familiar with the program WGet?

2   A   Yes.

3   Q   How is WGet used when it comes to social

4   engineering attacks?

5   MR. TOOMAN: Relevance. This man is not

6   charged with using WGet for social media attacks.

7   THE COURT: What's the relevance?

8   MAJOR FEIN: Your Honor, the relevance is

9   Chief Rouillard has specialized knowledge about WGet.

10   This is laying the foundation to ask subsequent

11   questions to how he knows WGet and is to questions

12   about WGet.

13   THE COURT: What does the malicious

14   spyware have to do with any of this?

15   MAJOR FEIN: I'm sorry?

16   THE COURT: What was your last question?

17   MAJOR FEIN: Ma'am, I can rephrase the

18   question, if that's the issue?

19   THE COURT: Just move beyond that. If he's

20   going talk about programs itself that is relevant.

21   MR. TOOMAN: We've heard a lot about WGet.

1   THE COURT: Overruled.

2   BY MAJOR FEIN:

3   Q   Chief, on a break, first, I'm going remove

4 from and return -- remove from the projector and return

5 give to the court reporter 148 Bravo and Prosecution

6 Exhibit 147 Bravo.

7   Are you familiar with WGet?

8   A   Yes.

9   Q   What is WGet?

10   A   WGet is an application or a program. WGet

11 is a program that will download a static copy of web

12 content such as a website or a SharePoint site and will

13 download how much of it you tell to download.

14   If I say execute WGet against PAO.

15 (INAUDIBLE) it will download the static copy of the

16 entire public facing website to my computer.

17   Q   And can you please explain for the Court,

18 again, very briefly, how have you used WGet in a

19 Windows environment or just WGet in general in your job

20 as a cyber threat analyst?

21   A   So for us we use WGet -- so there's two

1 versions. There's a Windows version and a Lennox

2 version. The Windows version is not installed by

3 default. You have to put it on there, but once --

4 other than that, the functionality is the same, but

5 because our guys are comfortable with Microsoft Window

6 we tend to install and use that; but when you run WGet

7 and download the page that let's you grab the entire

8 page, one of the reasons we use it is when we're doing

9 the open source intel gathering on a site, I can

10 download the web page and I can take that web page and

11 feed it into a script again that will break the web

12 page up into a bunch of words or a dictionary file.

13   I then use that is dictionary file against

14 user names that I have in an attempt to use those words

15 as passwords. So something that was pertinent to that

16 unit, for instance, if their motto was Black Jack then

17 the commander might have his password as blackjack6!

18   So my program will take words that are

19 relevant to them, do what we call a little of maining

20 changes Es to 3s and such and then run that dictionary

21 file against user accounts in and attempt to guess a

 1 password.

 2   Q   And this is in your op 4 capacity?

 3   A   Yes, this is all as a attack methodology.

 4   Q   And with that do you have authorization to

 5 use WGet on your computer or do you have to install it?

 6   A   We do. You have to be -- it's not part of

 7 the normal Army load. So it's not an authorized tool

 8 that the Army users encounter. It's only for, as far

 9 as the Army is concerned, the only people that I'm

10 aware of that use it are pen testers and op 4.

11   Q   And when WGet runs in the Window

12 environment on the screen, what does it look like?

13   A   S it's a command driven tool. So it's a

14 command line tool. It's not a normal Window thing that

15 we're used to. It's a black box on the screen, which

16 is you're command window. It will look like a bunch of

17 typed commands.

18   So if you squinted down or read through the

19 commands you would see that it would say WGet something

20 but otherwise it just looks like a command prompt

21 screen with text.

1   Q   When you said squint down?

2   A   By default when you open up a command

3   prompt the text is relatively small. So five, six feet

4   away I can't read it. Like I couldn't read the one on

5   his computer if I was standing here.

6   Q   When WGet is running, does it have across

7   the top of it in big letters WGet?

8   A   No, sir. It has a -- it has the page it's

9   downloading and then some status messages, but there's

10 not a big announcement that WGet is running.

11   Q   And can WGet be run in the background?

12   A   It can.

13   Q   What does that mean?

14   A   Windows gave us the capability to the run

15 multiple things at once. So on the top of all windows

16 there's a little icon that looks like a bar. If you

17 click that it's called minimizing it and moves it down.

18 You can just as easily drag the Internet Explorer.

19 That's why you can browse your mail and check the web

20 at the same time.

21   Q   Are you familiar with mIRC Chat?

```
 1        A      Yes.

 2        Q      How are you familiar with mIRC Chat?

 3        A      So --

 4        Q      In your official capacity?

 5        A      In my official capacity we use mIRC Chat in

 6   2003/2004 and in 2007/2008, on both deployments we used

 7   mIRC Chat with my AFA or the artillery guys to

 8   coordinate with other units for their artillery field

 9   of fire.

10        Q      When you say we, who is we?

11        A      The 1st cav, sorry.

12        Q      The division headquarters?

13        A      Yes, sir.  So they coordinated with the Air

14   Force because it was tool the Air Force was using and

15   that's what they chose because it's a -- it's also a

16   tool that is used just for text chatting, but with Army

17   systems in theater, the only simple I saw was AFA test.

18        Q      And what did it -- when mIRC Chat runs,

19   what does the screen look like?

20        A      The application has a distinct look.  It

21   will say mIRC Chat.  It will have users and channels on
```

1   one side. It will have a text field in the middle with

2   the chats scrolling up and down and you can kind of

3   tell chats going on.

4   Q   And you mentioned if you were sitting there

5   looking at the court reporter's computer you couldn't

6   see WGet. Could you see mIRC Chat running?

7   A   Right, I could see mIRC Chat running. I

8   would probably have to look a little closer to see if

9   it was mIRC Chat because it's a Window application and

10 it has a -- if you had seen mIRC Chat before you would

11 know what it looked like. If you had never seen it you

12 would know just from a glance it was mIRC Chat, but if

13 you have seen mIRC Chat before you would know that was

14 mIRC Chat?

15   MAJOR FEIN: Ma'am, may I have a moment?

16   THE COURT: Yes.

17   MAJOR FEIN: Your Honor, the United States

18 has no further questions.

19   THE COURT: Just for the record, this

20 witness was accepted as an expert in the GAL and cyber

21 security. So the Court allowed the testimony that was

1 objected to on the fact basis.

2   Cross examination?

3   CAPTAIN TOOMAN: Defense requests a

4 ten-minute comfort break.

5   (Hearing recessed at 5:00 p.m.)

6   (Hearing resumed at 5:10 p.m.)

7   (Testimony started before we had sound.)

8   CROSS EXAMINATION

9   THE WITNESS: Unplug the machine from the

10 network and log in locally with a local user account

11 and still access many of the same files and everything

12 else.

13   BY MR. TOOMAN:

14   Q   So I may able to do that, but I couldn't

15 print?

16   A   You could, without being part of it, if

17 you're still plugged into the network.

18   Q   Right, I'm plugged into the network.

19   A   I'm plugged into the network, but I log in

20 locally. So I'm not part of the domain, just looking

21 in a local user account. I could still print. I could

```
 1   still visit websites.  I could still run programs on my
 2   machine.  I may not be able to do domain specific
 3   services such as access restricted areas of SharePoint
 4   or access e-mail if I'm on a machine that's not part of
 5   the domain or if I'm logged in locally and I try to
 6   open up my e-mail I'm going to get a prompt for what we
 7   call domain credentials.  It's then going to ask for a
 8   domain user, domain password which if I don't have I'm
 9   not going to get into the e-mail.
10        Q     You'd need active directory to get anything
11   into that domain that would be shared drives?
12        A     Potentially depending on how the share
13   drive is configured.  So if the share drive was
14   configured with a password, then all you need is a
15   password to connect.
16        Q     That typically --
17        A     Sometimes.  It really depends on how the
18   individual user if you're at home on our home machine
19   you open up file explorer, right click share your
20   movies drive, for instance, now the rest of your family
21   can get your movies drive without having active
```

1 directory running in your house.

2   Q   That's not how the Army --

3   A   That's not --

4   Q   We (INAUDIBLE) use share folder?

5   A   That is not our standard normal implication

6 because it still occurs on Army networks.

7   Q   The shared drives that we're used to as

8 users are connected to the active directory.

9   A   Again, it depends on the system. A lot of

10 the PM systems aren't integrated into active directory

11 until 2007 I believe C pop, which is a primary tool

12 command post of the future. There's a Wikipedia

13 explanation, a real brief one, of what it is. It's

14 basically a command and control tool.

15   Until recently that wasn't using active

16 directory logs. So it really depends on the system

17 you're talking about, but for the average work station

18 for the user, the average work station would be part of

19 the domain unless there was a reason that our security

20 controls would break it.

21   So a good example of that would be the S1

1 system. I don't recall the name of it, but their

2 system if we implemented specific security controls on

3 there, their system would no longer functioning people

4 couldn't get orders and that type of thing. So we've

5 excluding those from the security push from the domain.

6   Q   And share drive is another example that it

7 takes something that's --

8   A   You can have either or. It really depends

9 on who set up the share and how that set it up. So

10 what we would say about using active directory accounts

11 to control access to that shared drive, but it doesn't

12 have to be.

13   Q   Do you have any knowledge of how the active

14 directory was set up in 2009 and 2010 in Iraq?

15   A   Other than how we train all the soldiers

16 who do it, no. I know from the training perspective we

17 train all of the people who configure the systems, we

18 train them all at Fort Gordon and that's who I was

19 teaching from 2008 through 2011.

20   Q   You don't have any direct knowledge of how

21 much time or how many resources were used to input

1 users into the GAL in 2009 and 2010, the Iraq GAL?

2   A   So I can --

3   Q   I think you talked about your time at 1st

4 cav, but you don't have any knowledge of what was going

5 on with respect to how much time it was taking to do

6 those tasks in 2009 and 2010?

7   A   So it's the same task whether it's me or

8 somebody in 2nd brigade 10th Mountain or somebody at

9 the NOSK. If there creating user accounts there's

10 certain steps you have to do. That process is about 10

11 to 15 minutes.

12   Q   It would take you less time than it would

13 take me?

14   A   Sure, but after you did it ten times you

15 would do it as fast as anyone else. Think of it as

16 changing a tire. If I was going to change a tire on my

17 car, the first time I sat down to change the tire it

18 would take me a while. After we changed 25 tires we'd

19 both be about the same speed.

20   Q   You mentioned on direct that there's

21 automated tools that could be used to do that?

 1   A   There are. You can strip the creation of

 2   user accounts and e-mail boxes into active directory.

 3   My 's personal experience is, most of us admins are

 4   basically too lazy to do it and we would rather click

 5   to or three hundred times to use up the time to do

 6   that, because the automated tools a lot of times it

 7   will take us six, eight, ten hours to work through the

 8   script on how to properly input all of that data. So

 9   rather than taking six to eight hours to learn to write

10   the script, we take the 15 minutes per account split it

11   out between three or four guys and they just click

12   through it.

13   Q   It's possible that there might be someone

14   who's good at writing scripts and they can just do in

15   it a few minutes and take a lot less time?

16   A   Possibly, but improbable.

17   Q   When you say writing the script, what sort

18   of program would be used to write this script?

19   A   With exchange, exchange runs on Microsoft,

20   and so power shell is the primary tool that we use now

21   and it's very -- it's somewhat complex language. It's

1   easy to begin with and then it just get more

2   complicated as you go on, but primary you would use

3   power shell as the scripting language because it would

4   be what was on the server, on the exchange server.

5   Q   So there's no, per se, prohibition against

6   using scripts and automating processes on a system?

7   A   There's no prohibition against using power

8   shell or script on a system, but other scripting

9   languages such as python or ruby or one of those other

10 type of scripts that are used a lot wired. Those have

11 to be installed and, again, you have to have prior

12 authorization from your G6 install those, and a reason

13 why you need those.

14   Q   Right.

15   Now, you talked about -- you were talking

16 specifically about the GAL in this case. You talked

17 about some of the threats with respect to having an

18 individual's name, and if you have the name then you

19 only have say figure out the password?

20   A   Right.

21   Q   That's one of two pieces that you need?

1   A   Half the puzzle.

2   Q   Are there protections to prevent a

3   nondomain computer from logging on to an Army domain?

4   A   So the user --

5   Q   If I --

6   A   I may not be understanding your question.

7   The user account identified in the GAL doesn't have

8   anything to do with a computer. If I wanted to exploit

9   that, for instance, there may be potential blocks -- if

10 it's a public facing server, then I can use that

11 account to log in. If the server is able to be

12 (INAUDIBLE) so a lot of the standard deployments was

13 the SharePoint server was accessible from the garrison

14 because 1st car as an example we have personnel on Fort

15 Hood and at Iraq that were accessing the SharePoint

16 server. So we would create at account, allow them

17 access from the outside.

18   Due to the escalation of the threat in the

19 cyber domain we have since prevented a lot of that type

20 of activity, but three, two three years ago those

21 firewalls and the access list and stuff that would

1   block that access normally were not in place.

2   Q   Well, what one would have would to get

3   access to the network before they could try to figure

4   out the password, correct?

5   A   Correct, however, again, that user account

6   that's identified in the GAL was also your U.S. Army

7   mil account. So I could use that to attempt to look in

8   as you against the dub dub dub .usarmy.mil. So until

9   we went to using the user information not just to

10   access the tactical environment, but also your dub dub

11   dub.

12   Q   You talked about sort of that I guess is

13   trying to hack into e-mails. The Army e-mail format is

14   pretty well known, isn't it?

15   A   I don't know. It's fully known to us in

16   the military. I mean, I see it all the time, but I

17   guess the best example is with common names.

18   So somebody could probably guess mine

19   because I'm a somewhat unique name, but for Jeffrey

20   Smith or Susan Johnson there might be a large number of

21   those. So what is their sequence. The bigger threat

 1   is that those accounts with that GAL identified what

 2   specific server they were on. So not just the U.S.

 3   Army mil account, but if they could access any of the

 4   Iraq servers because they were part of the NIPRnet

 5   domain on the unclassified network, if you could reach

 6   that server you could attempt to exploit using those

 7   against that actual server.

 8   Q   Were there protections in place to prevent

 9   someone from accessing those servers in Iraq?

10   A   So, again, in 2007 and 2008, no. Now most

11   likely they are, yes.

12   Q   What that the deal in 2009 and 3020.

13   A   No.

14   Q   You would agree with me that it's pretty

15   easy to find the Army e-mail address format? You would

16   agree with that?

17   A   Sure.

18   Q   And as far as names, one could really just

19   put John.smith and then John.smith1, John.smith.2 and

20   all the way up?

21   A   Right. So the real danger of the amount of

1 information, we call this classification by, I forget

2 the other term. When I take a bunch of similar

3 information we do the same thing with our network

4 configurations.

5   When I take a bunch of dispirit network

6 classifications which are unclassified and I combine

7 them into all one location, then that document actually

8 becomes a classified document because of the amount of

9 danger and the potential amount of exploitation that

10 could happen from that.

11   Q   The GAL wasn't classified, was it?

12   A   No, but the threat is more than that single

13 e-mail address because although I might know your

14 e-mail and my e-mail here I now have a list of 150,000

15 e-mails. So I may not able to get two, five, ten

16 people to click, but if I send out 150,000 e-mails I

17 have a much higher chance.

18   Q   You talked about there being a threat that

19 someone might try and send an e-mail from a commander?

20   A   Yes.

21   Q   Commander names are on the web?

1   A   They are.

2   Q   That's common knowledge?

3   A   Yes.

4   Q   You also mentioned that someone might take

5   the unit's motto and try to a variation of that as a

6   password?

7   A   Yes.

8   Q   Those unit mottos are also on the web?

9   A   Sure. However, again, when I was talking

10 about WGet scraping the page I used that as an example,

11 but there's a lot more information that they my talk

12 about. Commander likes to snowboard or the commander

13 was stationed here or there. So a lot of those

14 words -- and this is the technique that we use even

15 today.

16   Scraping that entire page gives me that

17 file with all words that -- rather than running a

18 standard dictionary attack which is, you know, just

19 normal words in the dictionary, I can have a much more

20 targeted list against that individual user who is tied

21 to that whatever it is.

1   MR. TOOMAN: One moment, please, Your

2   Honor.

3   THE COURT: Yes.

4   BY MR. TOOMAN:

5   Q   Now, in the response you just gave you're

6   assuming that WGet was used to pull the e-mail

7   addresses in this instance in this case?

8   A   No. So WGet scrapes websites. I'm unsure

9   as to the tool that extracted the GAL. I don't think

10   it was WGet. There are other tools that would extract

11   that type of data if you have a connection. It's

12   called an L data query. So light weight directory.

13   Q   You talked about WGet going and getting a

14   web page. It's going to get something that's in the

15   open source, right?

16   A   It will get whatever you have access to.

17   Q   So the 1st cav website says the commander

18   likes fishing, that's something that's on the 1st cav

19   website?

20   A   Correct.

21   Q   But WGet is not grabbing something that's

1   not there?

2   A   Correct, but if I'm in a tactical

3   environment and let's put nefarious hats on, for

4   instance. If I use WGet to scrape the SharePoint I'm

5   going to download the entire SharePoint size with all

6   of the files that make that up SharePoint site that I

7   have access to.

8   Q   Now, you're familiar with archive.org,

9   what's known as the way back machine?

10   A   Yes.

11   Q   And WGet is the type of program that is

12 used to populate that website. It goes out and it

13 grabs whole web pages?

14   A   Okay.

15   THE COURT: Do you know that or not?

16   THE WITNESS: I do not know that for a

17 fact. I would accept that answer.

18   THE COURT: Do you know it or not?

19   THE WITNESS: I do not, no, ma'am.

20   THE COURT: Move on, please.

21   BY MR. TOOMAN:

```
 1        Q      Now, Chief, if a soldier wanted to download
 2   all of the e-mails from his brigade, he could do that?
 3        A      What do you mean by all?
 4        Q      If he wanted to get all of the e-mails --
 5        A      All of the e-mail addresses?
 6        Q      All of the e-mail address from his brigade,
 7   you could do that?
 8        A      He could, yes, sir.
 9        Q      There's never been any sort of directive or
10   direction that went out and said you can't download
11   e-mail addresses off the GAL?
12        A      There has not.
13               MR. TOOMAN:  No further questions.  Thank
14   you.
15               THE COURT:  Redirect?
16                  REDIRECT EXAMINATION
17               BY MAJOR FEIN:
18        Q      Chief, you testified a few moments ago
19   about common Army e-mail formats?
20        A      Yes.
21        Q      Are the user name the portion that comes
```

1   before the at symbol, is that information in bulk

2   available to the public?

3   A   It is not, no, sir.

4   Q   And then also as far as your best knowledge

5   about the authority soldiers of downloading the global

6   address list book, is it your experience or your

7   knowledge of regulations that allows someone to do that

8   and then transmit it to their personal computer and use

9   it for personal gain?

10   A   No, sir. So part of the configuration for

11 the Outlook client that the Army uses is we call it

12 off-line. The off-line address book and the off-line

13 files.

14   If you become disconnected from the network

15 there's a cache copy on your machine that allows you to

16 continue working. I haven't had anybody download the

17 GAL to their personal machine or to a government

18 machine, and moving it to a personal machine would be

19 against the rules. We don't allow moving government

20 type files, and that would fall under a government file

21 to your personal machine.

1   MAJOR FEIN: Thank you. No further

2   questions, Your Honor.

3   RECROSS EXAMINATION

4   BY MR. TOOMAN:

5   Q   Chief, if I logged ON my personal computer

6   and wanted to download a list of e-mails of all of the

7   other judge advocates of the Army, would that be

8   against the rules?

9   A   No, sir.

10   MR. TOOMAN: Thank you.

11   THE COURT: Anybody on redirect?

12   MAJOR FEIN: Your Honor, may I have a

13   moment?

14   THE COURT: Yes.

15   REDIRECT EXAMINATION

16   BY MAJOR FEIN:

17   Q   Chief, in reference to the very last

18   question.

19   A   Yes.

20   Q   Again, based off of your personal

21   knowledge, is a soldier authorized to use their NIPR

1 machine to download the entire GAL and move it to their

2 personal computer for the purposes of giving it to a

3 corporation, a company?

4   A   No, sir.

5   Q   (INAUDIBLE) of the U.S. government.

6   A   It goes to intent. What do you intend to

7 do. If you are downloading the GAL to use on your

8 personal machine because you're machine is going in for

9 repair, it may be okay to have selected individual

10 addresses. There's not a reason to have the entire GAL

11 on your personal machine that I'm aware of.

12   Q   Why?

13   A   The potential for abuse. I don't know that

14 your machine is baselined or is kept in the appropriate

15 patches. If your machine is compromised and you've

16 moved the entire GAL from any theater down to brigade

17 to your personal machine and your personal machine is

18 compromised because your kid plays wacomo on a site,

19 now the enemy has that address list and can exploit --

20 again back into the whole spear fishing and targeting

21 of it.

1   That's why we don't allow people to do

2   that. That's also why on the AKO site all Army users

3   are allowed to install Norton antivirus and all of that

4   on your machine. We want personnel machines to be

5   protected at home. They'll issue you a CAD card so you

6   can check your mail, but it goes to intent, and that's

7   one of the big things in the cyber domains is if you

8   have physical access, it's really hard to stop a

9   maliciously intended person because they can do things

10   regardless of technical prevention.

11   Q   And in 2008 when you last left Iraq, was a

12   user -- did the user have the capability of their

13   personal computer to log on to the USFI domain and

14   download e-mails --

15   A   Negative.

16   Q   -- for their own personal use?

17   A   Anything connected to your machine into the

18   government network that was treated as a spillage

19   basically for us at 1st cav. It was the same as if you

20   took your NIPRnet and plugged it into the SIPRnet. You

21   would get a visit from the G6 why are you plugging your

 1 personal box in here, report everything --

 2   Q   What about at that time through a web mail

 3 interface that connects to the exchange in Iraq, did

 4 that exist?

 5   A   It did not exist, to my knowledge.

 6   MAJOR FEIN: Thank you.

 7   THE COURT: Let me just (INAUDIBLE) did

 8 not exist in 2008 or did not exist in 2009 or 2010?

 9   THE WITNESS: I cannot speak definitively

10 that it did not exist in 2009 and 2010. That was not

11 part of our normal configuration to allow web mail

12 access because of the attack vector, and if you did

13 access your mail through the web mail than the address

14 book is build into the web mail and you wouldn't need

15 it in your personal box because it is part of the web

16 mail client.

17   THE COURT: I asked a follow-up question.

18 Do you have any follow-up questions based on what I

19 have.

20   BY MAJOR FEIN:

21   Q   As recent as today and after 2010 there is

1   a web mail interface for the Iraq domain?

2   A   Not to my knowledge.

3   MAJOR FEIN: Thank you.

4   RECROSS EXAMINATION

5   BY MR. TOOMAN:

6   Q   Chief, what rule says a user can't download

7   e-mail addresses?

8   A   Again, there's not a rule to prevent you

9   from downloading the e-mail addresses, but you would

10   have to address the intent. Again, we don't write the

11   rules for everything. There's not a rule saying you

12   download every document on the SharePoint server, but

13   if you did that you would get a visit -- normally you

14   would get a visit due to the amount of data that you're

15   collecting. The question would be why do you need that

16   amount of data.

17   So the same principal applies to the global

18   address list, why are you -- the command if that was

19   scrutinized and they would say, why are you downloading

20   175,000 e-mail addresses for your personal thing where

21   anytime would you use those addresses you would be

1 connected to the military system that would have the

2 address book there for you and you wouldn't need it on

3 your personal machine.

4   Q   Chief, if your intend was I just wanted to

5 see if I could do it, that would be okay, wouldn't it?

6   A   It wouldn't necessarily be okay, no, sir.

7 We don't allow people to just is do things because they

8 want. Again do I download the entire SharePoint

9 server, and I use that because it's another big part of

10 our Enterprise services. So if I allow -- if I go back

11 to the secured facility to download the entire

12 SharePoint that's on the SIPRnet I will get a visit

13 from my S2 guys and say, why are you downloading all of

14 this data, what are you planning on doing with it

15 because the logical assumption is you're going to do

16 something with all of that data. So same principal

17 applies to the GAL.

18   Now, there's not a specific monitoring

19 tool -- there's not a technical implementation to watch

20 who's downloading the entire global address list

21 because it's a feature that most people don't download

1   and it's not a serious system inconvenience when you

2   download the whole GAL, because it's only a few megs,

3   but if you were to download the entire SharePoint.

4   Q   There's not a big suck on resources to

5   download the GAL?

6   A   There's not a huge impact on resources to

7   do the physical downloading of the GAL.

8   Q   There's no rule that says if you're intent

9   is just I wanted to see if I could do it, there's not a

10 rule that says you can't?

11   A   There's not a rule written that says you

12 cannot.

13   Q   Then if you deleted it after you figured

14 out how to do it that it would suggest that the intent

15 was --

16   MAJOR FEIN: Objection, Your Honor. Your

17 Honor, as speculative.

18   THE COURT: Let's hear the question.

19   BY MR. TOOMAN:

20   Q   If the file was deleted after it was

21 download and it was done, what would that say to you

1   about the intent?

2   THE COURT: Don't answer that.

3   MR. TOOMAN: Nothing further.

4   THE COURT: Redirect?

5   MAJOR FEIN: No, Your Honor.

6   MR. COOMBS: Just on that last question.

7   I understand that was going towards the cyber threat

8   expert. So he talked about intent. He talked about

9   whether it would be wrong or right depending upon

10 the intent. So as a cyber expert threat expert if

11 what he saw the person downloading it and deleting

12 it.

13   THE COURT: That would give him absolutely

14 no idea what the person's intent was.

15   MR. COOMBS: From a cyber threat standpoint

16 he's testifying that something might be wrong, he did a

17 certain act and he's saying well downloading the log

18 GAL is not a problem, but if you have all of this

19 information we would want to know why you have that,

20 and then that might cause G6 or someone to come to you

21 and ask you a question like why are you doing this.

1   So in this instance at issue here is

2 (INAUDIBLE) so the facts that information was

3 deleted immediately what would that tell him as a

4 cyber expert. That's what where that question was

5 going towards.

6   THE COURT: So overruled. I do have a

7 question for you. I'm still confused. I thought you

8 answered to the government a little bit earlier that if

9 a soldier wanted to download the e-mails all of his

10 e-mail addresses from the brigade or defense the

11 soldier could do it, there's no directive saying he

12 can't.

13   THE WITNESS: Correct, ma'am, there is not

14 a rule. There is not a specific rule that says you're

15 not allowed to download the entire address.

16   THE COURT: You're talking about

17 downloading on NIPRnet or a personal machine or is

18 there any difference?

19   THE WITNESS: When you transfer military

20 data to personal machines there are regulations, and

21 I'm sorry I can't quote them for you, but there are

```
 1  regulations that do not allow us to move military data

 2  to personal mechanicals.  I can't just take -- download

 3  the SharePoint site is a good example because but it

 4  has a bunch of unclassified data.  So it seat might

 5  have alert rosters and powerpoint slides and briefings

 6  and such.  It might have a briefing from the NSA.  I

 7  downloaded all of this data to a government machine.

 8  When I move it off of that that government machine to

 9  my personal machine the question comes up, why are you

10  doing that.

11            So there are rules that prevent us from

12  moving data from a government machine.  That's why

13  can you can't use thumb drives any more.  You can't

14  burn CDs on classified machines.

15            THE COURT:  Do you know what happens

16  (INAUDIBLE).

17            THE WITNESS:  I do not.  AR25-2 somewhere

18  the (INAUDIBLE) Act, but there are also local policies

19  that would be implemented that would prevent that.  I

20  can research that if need --

21            THE COURT:  Any follow-up based on mine?
```

1   MAJOR FEIN: No, ma'am.

2   MR. TOOMAN: No, ma'am.

3   THE COURT: All right.

4   MR. TOOMAN: No objection.

5   THE COURT: Please do not discuss your

6   testimony or your knowledge of the case with anybody

7   other than counsel while the trial is still on.

8   THE WITNESS: Yes, ma'am.

9   THE COURT: Just for the record, as part of

10   the my overruling of the defense objection I'm not

11   going to consider any of this witnesses testified he

12   said there's is rules and regarding the transfer of

13   data from the NIPRnet computer to a personal computer

14   noted where they are and he doesn't know what they are

15   that's my understanding of his testimony.

16   MAJOR FEIN: Yes, ma'am.

17   MR. TOOMAN: Sounds right, Your Honor.

18   THE COURT: Anything else we need to

19   address today.

20   MAJOR FEIN: No, ma'am.

21   MR. COOMBS: No, Your Honor.

1   THE COURT: Do we still need to talk about

2 tomorrow. Do you want to take a brief recess and come

3 back on the record and decide in ten minutes.

4   THE COURT: The Court is in recess at ten

5 minutes of 6:00, depending on how long this recess takes.

6   (Hearing recessed at 5:50 p.m.)

7   (Hearing resumed at 6:00 p.m.)

8   THE COURT: Counsel and I met in an 202

9 conference to talk about the way ahead. First of all,

10 we will be coming back on the record at 0930 for oral

11 argument on the admissibility of certain prosecution

12 exhibits that the defense has had hearsay

13 authentication and relevance objections to and there

14 was some confusion as to exactly what exhibits we were

15 talking. I know we're talking about Prosecution 109.

16 What are the other ones.

17   MAJOR FEIN: 31 and 32.

18   THE COURT: 33 and 34 are not being

19 offered by the government.

20   MAJOR FEIN: No, ma'am.

21   THE COURT: Defense you already remained

1 the citing for these two exhibits to be taken out.

2   MR. TOOMAN: Yes, ma'am.

3   THE COURT: Okay. That would be at he 0930

4 tomorrow. We also discussed the way ahead after that.

5 Right now the parties are negotiating additional

6 stipulations of expected testimony. They're in draft

7 form. They've got to go back, both sides have to agree

8 to stipulations of expected testimony as does PFC

9 Manning in order for them to be introduced as evidence

10 in lieu of witness testimony. That takes time.

11   And the parties have advised -- Major

12 Fein, why don't you explain for the record what the

13 parties would like to do.

14   MAJOR FEIN: Your Honor, the defense and

15 prosecution have agree to enter into the 17 more

16 stipulations of expected testimony, and based off of

17 the volume of the individual stipulations it will take

18 both parties additional time in order to discuss the

19 stipulations and come to an agreement and also provide

20 certain ones to certain government organizations to

21 have classification to be completed.

1   So the United States and defense came

2   together and proposed that after tomorrow's oral

3   argument the Court recesses until next Tuesday which

4   would provide both parts at which time by the end of

5   this week to have the stipulations completed and

6   then to send those to the different government

7   organizations and for them to come back based off of

8   a court order by Wednesday of next week.

9   If we reconvene, Your Honor, Tuesday of

10   next week in a status hearing on the stipulations or

11   any other issues that might arise and the goal then

12   being on Wednesday the government resumes its case

13   in chief by calling the next set of witnesses and

14   reading the stipulations on the record.

15   THE COURT: Is that the defense's

16   understanding as well?

17   MR. COOMBS: Yes, Your Honor.

18   THE COURT: All right. And the Court did

19   discuss with the parties this additional review by the

20   other agency. That's between the government. You can

21   certain have whoever you want to review it, but it's

1   not going delay the Court. I move to have the court

2   order coming out saying it's going to be three business

3   days and that's it.

4   MAJOR FEIN: Yes, ma'am.

5   THE COURT: So I'll draft that order today

6   and we'll put that in as an Exhibit tomorrow.

7   Is there anything else we need to

8   address at this point?

9   MR. COOMBS: No, Your Honor.

10   MAJOR FEIN: No, Your Honor.

11   THE COURT: The only thing I'm thinking of

12 based on the testimony of the last witness I had asked

13 the parties to prepare briefs on value and money, and

14 the government has withdrawn that part of his

15 testimony. Does either party see the need for briefs

16 at this time?

17   MAJOR FEIN: No, ma'am.

18   MR. COOMBS: No, ma'am.

19   MAJOR FEIN: There is one other

20 administrative issue. Over the weekend there was an

21 e-mail between the parties and the Court about not

 1   calling sentencing witnesses prior to 8 July. I'll

 2   just put on the record that the United States based off

 3   of the defense not objecting and the Court approving

 4   that United States did notify all sentencing witnesses

 5   or is in the process of notifying prosecution and

 6   defense witnesses that would not be called any earlier

 7   than 8 July.

 8   THE COURT: That's fine. That was a series

 9   of that e-mails that went back and forth. The defense

10   had no objection. And, again, looking at the schedule

11   now and motions, certain motions that may arise and the

12   length of potential defense case we may not even be at

13   that point by July 8th. We will have to see how we

14   address that as we go long.

15   MAJOR FEIN: Yes, ma'am.

16   MR. COOMBS: Yes, Your Honor.

17   THE COURT: Anything else?

18   MAJOR FEIN: No, ma'am.

19   MR. COOMBS: No, ma'am.

20   THE COURT: The Court is in recess.

21   (Hearing adjourned at 6:25 p.m.)

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

bar (1)
  132:16
Base (2)
  1:10;73:5
based (28)
  7:21;26:5,21;27:11;
  60:11;62:16;69:9;70:4;
  99:12;101:14,16;102:19;
  105:11;113:9,21;114:10;
  115:7,11,19;124:5,15;
  151:20;154:18;160:21;
  163:16;164:7;165:12;166:2
baselined (1)
  152:14
basic (3)
  96:8;122:9;123:8
basically (10)
  17:9;18:8;35:10;58:12;
  76:19;82:3;110:21;137:14;
  140:4;153:19
basis (6)
  21:19;24:17;38:12;55:9;
  118:4;135:1
bat (1)
  61:20
battalion (2)
  62:3;65:1
battle (4)
  76:5;80:2,3;92:17
BCCS (3)
  80:1;92:17;93:9
BCT (1)
  72:5
BCTs (2)
  74:5,5
became (1)
  110:7
become (1)
  150:14
becomes (1)
  145:8
begin (1)
  141:1
BEHALF (2)
  3:3,10
behind (1)
  108:17
belong (3)
  37:11;40:16;56:19
belonged (2)
  37:15,15
belonging (1)
  56:6
below (1)
  9:19
Belvoir (3)
  71:5;74:13;75:18
besides (1)
  45:10
best (2)
  143:17;150:4
better (4)
  37:9;65:17;74:20;112:12

beyond (2)
  126:17;128:19
big (6)
  90:10;132:7,10;153:7;
  156:9;157:4
Bigelow (1)
  6:3
bigger (1)
  143:21
bill (2)
  58:18,20
binge (1)
  99:8
bio (1)
  116:14
bit (6)
  11:18;25:17;46:9;64:7;
  94:11;159:8
black (3)
  122:5;130:16;131:15
blackbox (1)
  124:3
blackjack6! (1)
  130:17
blanket (1)
  104:13
block (4)
  69:7;79:11;116:1;143:1
blocks (3)
  115:9,21;142:9
blog (1)
  111:4
blue (6)
  63:8,13,14,18;64:4;75:7
board (1)
  28:12
book (7)
  13:8,9;92:4;150:6,12;
  154:14;156:2
both (12)
  30:18;34:15;50:10;51:5;
  55:8;74:13;93:15;133:6;
  139:19;163:7,18;164:4
bottom (1)
  122:8
bought (2)
  96:19;101:5
bouncing (1)
  88:21
bounds (1)
  111:13
box (10)
  37:4;88:5;106:18;108:3;
  111:19;127:1,17;131:15;
  154:1,15
boxes (1)
  140:2
Bradley (1)
  1:6
branch (1)
  66:6
brand (1)
  22:13

Bravo (15)
  6:20;7:17,17;8:3,3;32:2;
  33:15;34:10;49:12;118:13,
  13;119:11;120:7;129:5,6
break (6)
  65:6;122:10;129:3;
  130:11;135:4;137:20
breaks (1)
  21:17
brief (6)
  7:8,9;76:5;115:15;
  137:13;162:2
briefing (1)
  160:6
briefings (1)
  160:5
briefly (5)
  74:9;85:16;87:17;94:5;
  129:18
briefs (2)
  165:13,15
brigade (30)
  16:4;57:9;65:2;72:11;
  73:7;77:6;83:14,17;84:2,3,
  18;85:2;89:19;90:18;91:5,
  5,18,19;92:9,13,16;104:2,
  18;109:11;119:5;139:8;
  149:2,6;152:16;159:10
brigades (8)
  56:11;62:4;80:1;83:20;
  91:3;93:9,12;106:1
bring (5)
  8:17;32:19;60:7;63:10;
  66:4
broad (2)
  62:12;68:1
browse (1)
  132:19
browsing (1)
  76:4
BTU (1)
  25:5
BTUs (2)
  25:3,5
buckets (1)
  110:18
budget (2)
  23:17;24:5
budgeting (2)
  24:3,4
build (3)
  54:3;83:20;154:14
building (2)
  25:10;72:13
built (1)
  88:9
bulk (1)
  150:1
bunch (8)
  84:17;87:6;104:14;
  130:12;131:16;145:2,5;
  160:4
burn (1)

  160:14
business (6)
  51:3,4;63:7;99:7;102:4;
  165:2
button (1)
  52:20
buy (5)
  25:5;27:9,10;88:8;97:2
buyers (2)
  113:6,8
buying (1)
  99:8
bypasses (1)
  109:12

C

cable (2)
  20:12;24:13
cabling (3)
  24:15,16;88:8
cache (1)
  150:15
CAD (1)
  153:5
call (12)
  35:17;63:18;75:7;76:19;
  92:2;104:10;110:18;
  124:12;130:19;136:7;
  145:1;150:11
called (10)
  9:5;34:21;41:8;61:8;
  83:9;93:21;108:18;132:17;
  147:12;166:6
calling (2)
  164:13;166:1
calls (1)
  9:2
Calvary (1)
  17:18
came (4)
  29:18;98:21;100:15;
  164:1
camp (6)
  56:7;73:18;74:2,2,2;75:1
campaign (3)
  106:6;123:2,18
campaigns (2)
  105:20;106:1
can (79)
  17:10,10;22:15;23:2;
  32:18;36:21,21;39:6;42:11,
  14;48:4,18,19;50:9;52:16;
  53:15;55:15,19;58:4;59:1;
  65:9;67:10;68:3,21;73:20;
  84:2;86:14;87:7;99:10;
  100:10;102:5;104:1;105:8;
  107:14,15,16;108:1;114:8,
  14;115:14;120:3;121:19,
  20;122:2,3,5,7,9;123:2,13,
  19;125:3,14,15,15,18,19;
  128:17;129:17;130:9,10;
  132:11,12,18,19;134:2;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

83:3,4,6;84:11;85:2,16;
86:14,15;87:16
creates (4)
83:10;86:15;90:3;119:1
creating (4)
20:4;26:9;89:12;139:9
creation (5)
85:4;118:18,21;119:7;
140:1
credentials (5)
16:11,14,17;108:2;136:7
CROSS (7)
4:6,14;16:8;41:2;114:14;
135:2,8
crossing (1)
15:10
CTCs (2)
66:3;105:21
current (8)
9:13,14;11:7;27:15;
61:17;66:6;72:18;79:13
currently (3)
69:4;72:19;79:20
customers (1)
27:5
cut (1)
57:11
cyber (36)
9:10,16;62:3;63:6;64:17;
65:1,8;66:11,12;67:11;68:9,
13;70:6;73:6,7;79:14;
81:12;93:16;94:2;102:10;
105:20;106:15;107:6;
108:12;116:6,13;117:6;
121:15;129:20;134:20;
142:19;153:7;158:7,10,15;
159:4
cycle (1)
98:11

D

daily (5)
21:19;27:17;28:1;82:2;
88:16
danger (2)
144:21;145:9
dangerous (2)
103:19;116:18
dangers (1)
18:21
data (16)
74:14;75:19;100:10;
140:8;147:11,12;155:14,16;
156:14,16;159:20;160:1,4,
7,12;161:13
database (1)
60:4
dated (2)
5:11;6:9
dates (1)
27:17
DAVID (1)

3:11
day (5)
48:21;49:4;71:13,14;90:2
days (4)
47:7,12;121:6;165:3
day-to-day (1)
30:4
deal (3)
55:9;71:19;144:12
dealing (2)
79:2;108:11
dear (1)
101:11
decide (3)
114:9;115:14;162:3
deconflicted (1)
84:20
deconflicting (2)
84:19;90:9
deconfliction (1)
122:20
dedicated (1)
90:11
default (4)
64:2,11;130:3;132:2
defend (2)
65:17;66:13
defenders (1)
105:9
defense (21)
67:7,8;82:15;94:5;
102:11,13;113:8;114:7,12;
124:7;135:3;159:10;
161:10;162:12,21;163:14;
164:1;166:3,6,9,12
defense's (1)
164:15
define (2)
67:2;109:10
definitely (1)
39:8
definitively (1)
154:9
delay (1)
165:1
delete (1)
121:12
deleted (3)
157:13,20;159:3
deleting (1)
158:11
Dell (1)
22:13
demand (1)
97:20
demonstrate (1)
65:7
demonstrated (1)
82:8
Denise (1)
1:18
Department (1)
82:14

departure (1)
76:18
depending (6)
16:15;26:19;48:17;
136:12;158:9;162:5
depends (4)
136:17;137:9,16;138:8
deploy (7)
62:5;63:15,17;64:13;
65:2;87:5;93:1
deployed (7)
51:14;73:9,10;76:12,16;
83:11;90:2
deploying (1)
92:20
deployment (9)
43:4;46:6,21;47:15;
73:19;74:5;75:1;104:7;
110:6
deployments (4)
73:11,15;133:6;142:12
deploys (1)
46:12
depreciation (1)
98:15
design (4)
10:13;11:4;12:7;67:18
designed (2)
35:21;122:4
desk (11)
28:14;29:8;40:15;59:6;
85:6,7,13,21;87:13;119:3,9
detecting (1)
62:19
detection (1)
71:1
determination (2)
98:21;99:1
determine (2)
97:12;113:19
determining (1)
99:17
detrimental (1)
116:18
develop (1)
19:19
developing (2)
19:14;68:6
development (1)
19:15
devices (1)
71:1
dictionary (5)
130:12,13,20;146:18,19
difference (1)
159:18
different (24)
17:8,15;19:12;33:6;
56:19;57:18;58:1;59:15;
79:15;83:6,12;84:4;88:1;
102:12;103:5;110:18;
111:13;112:19;113:4;
122:6,9,11;127:12;164:6

differently (1)
113:10
digest (1)
59:8
Digital (1)
45:7
DIRE (4)
4:12;93:20;94:5,7
DIRECT (15)
4:5,11,13;9:8;18:10;41:7;
42:4,9;49:12,15;61:11;
94:12;103:10;138:20;
139:20
direction (2)
91:7;149:10
directive (2)
149:9;159:11
directly (4)
62:15;76:2,5;124:11
directory (77)
13:1;14:17;15:1,2,3,3,4,6,
8,14,15;16:1,2,3,7,7;17:7,
21;18:2,8,10,12,16;20:6;
22:4;26:1,16;27:6;28:16;
41:8,13,14,19;42:3,5,5,7,8,
12;43:1;45:10;47:18,21;
52:15;54:3,4,8;58:4,7,12,
19;59:1,3,7;65:16;72:12;
73:20;80:10;84:10;85:19,
20;86:2,13;89:14,16;90:4;
120:18,19;136:10;137:1,8,
10,16;138:10,14;140:2;
147:12
disapprove (1)
85:14
DISCLAIMER (1)
2:1
disconnected (1)
150:14
discuss (4)
60:19;161:5;163:18;
164:19
discussed (3)
115:10;125:8;163:4
discussions (1)
100:6
disk (2)
44:8;119:18
Disney (1)
108:8
Disneyland (1)
104:21
dispirit (1)
145:5
displayed (1)
34:4
displeased (1)
111:3
disregard (3)
117:21;118:5,8
distinct (1)
133:20
distribution (2)

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

131:12;143:10;148:3

environments (1)
68:15

equals (1)
125:17

equate (1)
25:2

equipment (5)
20:13;25:9;64:9;65:14;
89:11

equivalent (1)
13:9

Es (1)
130:20

escalation (1)
142:18

escapes (1)
38:1

especially (4)
68:12;89:19;90:2;116:20

establish (3)
45:13;54:5;74:17

established (2)
17:19;52:16

establishes (1)
15:20

estimates (1)
98:13

evaluate (6)
95:5;98:17;102:13;103:5,
13;110:18

evaluating (3)
112:17;127:4,4

evaluation (3)
30:10;95:10;117:18

even (10)
17:6;50:17;57:12;83:11;
84:13;106:8,8;125:9;
146:14;166:12

eventually (1)
46:19

everybody (3)
86:11;110:19;112:1

everyone (2)
13:2;91:2

evidence (2)
6:15;163:9

exactly (2)
115:3;162:14

exam (1)
67:4

EXAMINATION (28)
4:5,6,7,8,11,12,13,14,15,
16,17,18;9:8;41:2,7;55:13;
57:3;61:11;94:7;103:10;
114:15;116:16;135:2,8;
149:16;151:3,15;155:4

examined (2)
9:7;61:10

example (13)
14:8;16:20;104:2,5;
111:16;123:9,20;137:21;
138:6;142:14;143:17;

146:10;160:3

examples (1)
108:15

Excel (1)
58:1

excess (1)
24:21

exchange (57)
13:19;14:3;15:6,6,11;
16:3,4;17:16;18:6,9;20:7;
26:1;27:3;28:16;30:20;
32:11;36:17,17;37:7;39:18;
42:9;52:18;54:7;55:16,19;
59:4,6;65:16;70:2,20;
72:12;73:20;79:3,6,12;
80:10;83:5,7,8,13,13,14,15;
85:19;88:2;89:17;92:5,9;
108:11,17;120:16,19;
121:13;140:19,19;141:4;
154:3

exchangers (1)
79:16

exchanges (2)
26:17;77:9

exclude (1)
102:2

excluding (1)
138:5

excuse (1)
68:8

excused (1)
60:19

executable (1)
57:13

execute (1)
129:14

exercise (1)
64:14

Exhibit (27)
5:9,18,19;6:1,8,18,19,20,
21;7:2,19;31:12;32:1,2;
33:14,15;34:10;36:12;
39:14,14;40:8;49:12;56:2;
118:13;119:11;129:6;165:6

Exhibits (11)
5:14;6:13;7:1,4,16;8:15,
19;44:7;162:12,14;163:1

exist (6)
122:12;154:4,5,8,8,10

exists (3)
42:6,9;125:6

expand (1)
74:8

expect (1)
72:16

expected (7)
5:10;6:2,8;8:1;163:6,8,16

expediential (1)
90:20

experience (14)
70:5;72:7;98:5;102:20;
107:1;108:10;109:17;
110:1;112:5;113:11;114:1;

115:19;140:3;150:6

experiences (1)
115:8

expert (16)
81:11,15;93:15,19,21;
94:2;102:10;112:17;
113:21;117:18;124:18;
134:20;158:8,10,10;159:4

expertise (1)
70:4

experts (2)
66:16;102:3

expired (1)
121:9

explain (8)
63:13;65:10;74:9;88:3;
123:19;124:2;129:17;
163:12

explained (2)
107:2;116:1

explanation (1)
137:13

exploit (7)
68:21;71:15,15;110:12;
142:8;144:6;152:19

exploitation (1)
145:9

exploited (1)
67:10

exploits (1)
71:14

Explorer (2)
132:18;136:19

external (2)
68:19;70:15

extract (4)
120:15;125:15,16;147:10

extracted (2)
120:16;147:9

extracts (3)
7:20;8:4;125:17

F

facility (1)
156:11

facing (3)
116:15;129:16;142:10

fact (8)
23:17;40:1;101:6,9;
118:3;124:10;135:1;148:17

factors (1)
97:17

facts (2)
101:16;159:2

factual (2)
114:21;126:17

Fagi (1)
74:2

failed (1)
7:4

failure (1)
23:2

fall (2)
112:4;150:20

falsify (1)
123:11

familiar (5)
128:1;129:7;132:21;
133:2;148:8

family (1)
136:20

far (6)
22:20;110:5;113:10;
131:8;144:18;150:4

fast (2)
42:7;139:15

feature (1)
156:21

February (7)
12:4,5;43:5,5;44:4;50:17;
51:10

fed (1)
66:18

feed (2)
2:7;130:11

feet (1)
132:3

FEIN (77)
3:4;5:5,8,16;7:6,11,15;
8:11,16;61:1,12;78:2,4,19,
21;81:3,9,19;84:6;87:21;
88:13;93:14;94:6;102:5,8,
18;103:3,7,11;106:21;
112:15,21;113:4;114:18;
115:3,6,18;117:13,16;
118:2,10,12,14;119:10,13;
120:6,9;124:9,20;128:8,15,
17;129:2;134:15,17;
149:17;151:1,12,16;154:6,
20;155:3;157:16;158:5;
161:1,16,20;162:17,20;
163:12,14;165:4,10,17,19;
166:15,18

Felton (1)
74:2

few (4)
58:10;140:15;149:18;
157:2

fiber (1)
35:8

field (12)
67:3,21;68:9,13,13;
69:11;70:6;92:19;98:10;
102:20;133:8;134:1

fielded (8)
64:2;77:7;80:3,5,8,9;
92:18;93:9

fielding (1)
92:16

fields (1)
125:15

fight (1)
64:13

figure (3)
63:21;141:19;143:3

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

figured (1)
  157:13
file (13)
  15:11;48:17;73:21;
  107:18;125:12,15;130:12,
  13,21;136:19;146:17;
  150:20;157:20
files (5)
  7:21;135:11;148:6;
  150:13,20
filing (1)
  115:15
fill (9)
  66:13;68:3,4;87:8;92:18;
  105:1,4;108:7;123:8
filled (2)
  86:3;87:6
filling (2)
  87:2;123:7
filter (2)
  109:13,14
filtering (2)
  108:20;109:5
final (3)
  60:18;64:15,21
financial (4)
  107:10;108:4,13;112:5
find (7)
  8:17;13:12;33:21;59:21;
  63:21;126:9;144:15
fine (3)
  98:15;119:9;166:8
finish (1)
  114:5
finished (1)
  94:3
fire (2)
  56:11;133:9
firewalls (3)
  26:5;70:21;142:21
first (49)
  9:5;14:9;28:6;29:19;34:1,
  6;40:2;46:6;48:16;54:12;
  61:8,14,18,20;62:8,18;63:3,
  18;65:1;71:4;73:1,19;75:1;
  79:14;84:7;85:20;86:5;
  100:14,15,17,18;102:15,17;
  109:8;110:6;114:13;116:5,
  7,21;117:8;120:2,17,17;
  122:19;125:7;126:9;129:3;
  139:17;162:9
firsthand (1)
  110:1
fishers (3)
  110:13;122:16;125:4
fishing (24)
  104:10,11,12,13,13,15;
  105:6,12,19;106:1,18;
  107:3,8;108:13;109:7,18,
  19;115:8,20;117:10;123:2,
  10;147:18;152:20
five (10)
  20:15;21:14;79:3;104:20;

108:8;116:3;127:6,12;
132:3;145:15
five-day (1)
  79:11
flagging (1)
  67:15
focus (2)
  65:4;105:9
focused (1)
  110:8
focuses (1)
  103:17
folder (1)
  137:4
folks (1)
  47:9
following (1)
  118:8
follows (2)
  9:7;61:10
follow-up (4)
  60:10;154:17,18;160:21
force (4)
  43:20;93:5;133:14,14
forces (2)
  76:17;121:4
foreign (7)
  32:11;115:8,20;122:15;
  124:13;125:3;126:3
forensics (1)
  67:7
forget (1)
  145:1
form (5)
  86:3,18;87:2,9;163:7
format (2)
  143:13;144:15
formats (1)
  149:19
formatted (1)
  59:7
forms (1)
  87:8
Fort (19)
  1:11,17;10:15;51:14;
  62:17;67:5;69:6;71:5,6;
  73:5;74:12,13;75:17;80:6;
  104:6,20;109:11;138:18;
  142:14
forth (1)
  166:9
found (1)
  92:20
foundation (10)
  19:20;78:20;81:4,10,17;
  94:4;102:7;103:2;126:17;
  128:10
foundational (1)
  78:2
four (8)
  12:10,12;20:7,20;26:2;
  40:6;64:12;140:11
frame (2)

78:16;100:16
frankly (1)
  118:4
front (1)
  108:19
fulfillment (1)
  21:20
fully (1)
  143:15
function (8)
  30:4;42:2,14,16;52:16;
  57:14;58:19;60:5
functionality (2)
  59:16;130:4
functioning (1)
  138:3
functions (4)
  24:11;45:17;54:4;60:7
funding (1)
  23:13
further (15)
  37:13;40:21;41:18;55:11;
  57:2;59:21;101:11;103:2;
  105:18;117:19;122:15;
  134:18;149:13;151:1;158:3
future (1)
  137:12

G

G1 (1)
  106:16
G32 (1)
  9:15
G6 (8)
  10:8;73:13;85:6,8,13;
  141:12;153:21;158:20
G6s (1)
  93:7
gab (1)
  68:4
gain (4)
  68:21;108:13;112:5;
  150:9
GAL (159)
  12:16;13:14,19,20;14:1,2,
  5,17;18:1,3,5,7,8,9,13;19:6,
  15;20:4,5,6;22:1,3;24:13,
  19;25:12,13;27:14;28:2,3,9,
  15;29:13,14;30:7,12,15,16;
  31:18;32:10,16;33:11,20;
  34:3;36:16;38:3,13;39:20;
  40:11,12;42:5,9,19;43:3,7,
  9,14,20,21;44:3,18;45:18,
  20,21;46:3,4;47:2,18;48:4,
  6,7;50:3,14;51:18,21;52:6,
  16,18;53:7,12;54:5,12;55:6,
  18;56:20;57:6,8,14,19,21;
  58:4,6;77:13,17;78:6,12,13;
  81:21;82:5,19;83:1,10,10,
  16,19;84:5;85:9;86:20;
  87:12;89:8,12;90:12,15;
  91:5,8,12,17,19,20;92:2,3;

93:15;94:1;98:18;100:7,8,
9;102:13;104:19;116:20;
117:18;118:16;119:1,17,20;
120:14;121:5,8;125:2;
126:4;134:20;139:1,1;
141:16;142:7;143:6;144:1;
145:11;147:9;149:11;
150:17;152:1,7,10,16;
156:17;157:2,5,7;158:18
GALs (2)
  83:15,16
gap (2)
  66:14;92:18
Garrison (6)
  1:9;72:16;74:20;75:18;
  109:6;142:13
gateway (1)
  108:18
gather (2)
  116:7,9
gathering (1)
  130:9
gave (2)
  132:14;147:5
gear (2)
  70:15;112:10
General (16)
  40:3,3,14;54:12,13,13,14;
  55:8,8;64:1;80:7;88:1;
  95:10;111:6;119:9;129:19
generally (2)
  94:1;111:3
generals (1)
  40:6
general's (1)
  119:8
generic (1)
  109:2
Gets (8)
  46:14,17;63:15;83:21;
  85:2;86:13;91:8;108:21
gift (1)
  104:21
given (5)
  67:3;84:11;85:13;114:7,9
gives (5)
  37:7;64:5;86:16;89:21;
  146:16
giving (1)
  152:2
glance (1)
  134:12
global (26)
  9:20;12:14,16,17,18,21;
  13:1,5,6;18:10;42:5,11,15;
  45:10;54:5,16,21;77:13,14;
  81:11;112:11,18;113:1;
  150:5;155:17;156:20
goal (2)
  107:7;164:11
goes (9)
  55:16,20;58:13;109:1;
  124:11;126:16;148:12;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

152:6;153:6
Good (6)
41:4,6;109:5;137:21;
140:14;160:3
Google (5)
99:9;100:13;101:16,19;
113:9
Gordon (5)
67:5;69:6;71:7;80:6;
138:18
Government (24)
2:4;3:3;81:14;103:20;
110:16;111:3,18;114:6;
122:14;150:17,19,20;152:5;
153:18;159:8;160:7,8,12;
162:19;163:20;164:6,12,20;
165:14
grab (2)
107:18;130:7
grabbing (1)
147:21
grabs (1)
148:13
green (6)
63:8,13,14;64:7;71:11;
74:2
ground (1)
66:17
group (10)
10:18;20:9;56:9;86:10,
10,11;104:5,8;106:7;120:18
groups (7)
37:11;40:16;53:5;110:14,
15;111:7;122:11
growing (1)
90:20
GS (1)
70:6
guarantee (1)
55:7
guess (7)
58:14;62:12;100:3;
130:21;143:12,17,18
guy (3)
85:21;90:3,6
guys (23)
29:11;52:11;62:7,19;
63:7,9,10;65:5;66:16;
67:19;84:13;85:7;89:20;
110:10;111:2;112:12;
117:7;121:10;122:18;
130:5;133:7;140:11;156:13

H

hack (1)
143:13
hackers (1)
111:7
half (3)
69:3;125:7;142:1
Hall (1)
1:10

hand (1)
125:20
handed (2)
33:10,11
Handing (3)
31:12;32:1,3
handle (2)
71:13;72:1
handling (2)
67:11;70:10
hands (2)
22:14,16
hang (1)
88:19
happen (4)
30:3;90:21;124:12;
145:10
happened (1)
121:5
happens (5)
64:20;83:17;85:12;
106:13;160:15
hard (4)
22:15;43:18;116:2;153:8
harder (1)
109:7
hardware (4)
20:4;21:10,11;22:15
harm (1)
111:9
hats (1)
148:3
Headquarters (17)
1:8,8;12:10,12,13;30:18;
31:8;38:5,8,11,14;56:6;
76:19,20;91:15,18;133:12
hear (1)
157:18
heard (3)
81:13;118:1;128:21
Hearing (11)
1:15;7:13,14;61:4,5;
135:5,6;162:6,7;164:10;
166:21
hearsay (6)
21:2;23:14;101:20;102:1;
115:11;162:12
held (1)
1:16
help (16)
28:14;29:2,8;52:13;63:9;
64:9;65:17,17;66:16;85:6,6,
13,21;87:13;119:3,9
helping (1)
63:7
helps (3)
13:12;45:13,15
Here's (1)
114:3
hi (1)
109:2
hidden (1)
39:20

hide (1)
40:1
high (2)
20:15;125:21
higher (6)
11:16;75:8;76:20;104:16;
121:11;145:17
highest (1)
11:12
highlight (1)
106:12
highly (1)
71:17
historically (1)
87:7
hit (3)
34:1;38:4;59:10
hold (3)
10:5;22:15;31:3
holes (1)
68:3
home (6)
51:10,13;64:20;136:18,
18;153:5
honestly (2)
100:16;116:2
Honor (41)
5:21;6:12,16;7:6,11,12,
15;8:12;9:1,10;20:1;30:8;
81:3;101:10;102:19;
112:15,18;113:14;117:13;
118:4,12;119:10;120:6;
124:9;126:16;128:8;
134:17;147:2;151:2,12;
157:16,17;158:5;161:17,21;
163:14;164:9,17;165:9,10;
166:16
Honorable (1)
1:17
Hood (2)
10:15;142:15
hope (3)
46:19;47:16;104:14
Hosen (1)
56:8
host (1)
26:5
hours (9)
29:21;47:5,10;48:16;
90:2;91:12;118:20;140:7,9
house (3)
25:3,4;137:1
Huachuca (1)
62:17
huge (1)
157:6
hundred (3)
22:11;104:21;140:5
hundreds (1)
31:4
HUNTER (1)
3:8
HURLEY (19)

3:13;6:16;8:7;19:17;
21:2;23:14;30:8,11;41:3;
45:8;49:8,11;51:3;52:10;
55:10;57:4;58:9;60:13;78:1
hypothetical (1)
42:20

I

IA (1)
66:21
icon (1)
132:16
id (1)
85:1
idea (1)
158:14
identification (5)
5:19,20;6:2,15,21
identified (3)
142:7;143:6;144:1
IDs (1)
44:3
immediately (1)
159:3
impact (1)
157:6
implement (1)
65:18
implementation (1)
156:19
implemented (2)
138:2;160:19
implicated (1)
98:19
implication (1)
137:5
important (3)
100:9;119:7;120:21
improbable (1)
140:16
inaccurate (1)
46:11
inactive (1)
47:6
inaudible (127)
2:17;10:4,9,18;12:2,13;
13:20;14:8,20;15:7;16:7,11,
15;17:1,4,10;18:15;19:1,16;
20:4,12,16,17,18;21:8;22:5,
14;23:7,19,20;24:11,17,18,
19;25:6,20;26:6,7,8;27:10,
11,11,17,19;28:13;29:2,8,
10,12,12;30:6,11;31:5,8;
32:1,14,16,17,19;33:3,10,
20;34:15,17;35:13;36:4;
37:2,2,6;38:6,9,10,11,12;
40:18,19;41:16;43:18;45:1,
4;47:6,13;48:10,12,19;50:5,
9,11,12;51:11,12,20;52:1,3,
4,12;53:20;54:2,7,14;55:3;
56:11;58:1;59:5,12;60:15;
61:2;73:1,19;75:3;86:11;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

113:2,15;117:4;118:9;
122:20;124:7,7;126:8;
129:15;137:4;142:12;
152:5;154:7;159:2;160:16,
18
INAUDIBLEmail (1)
14:13
inbound (1)
89:6
incident (2)
67:11;70:9
include (1)
9:20
includes (1)
72:11
Including (1)
79:19
incoming (1)
40:5
inconvenience (1)
157:1
increases (1)
90:1
incurred (1)
43:13
INDEX (1)
4:1
indicated (3)
44:2;49:15;54:9
individual (13)
14:7,15;17:13;37:6;38:3,
13;85:17;87:1;110:15;
136:18;146:20;152:9;
163:17
individuals (5)
49:1,19;103:21;104:8;
106:7
individual's (1)
141:18
industry (4)
11:7;69:9,14;71:9
inexperienced (1)
105:3
infers (1)
92:3
information (59)
11:8;13:11;14:5,9,18;
17:16;30:7,15;34:3,4,18;
36:14,18;37:1,3,8,10,14;
38:6;40:13,15;44:16;49:4;
54:16,19;57:21;58:13;59:2,
6,9,21;66:9;67:3;69:12;
75:9;76:9;84:8;87:3,6;
96:18;98:1;102:20;105:15;
116:10,17;120:1;121:16,18;
123:9,16;124:14;127:15;
143:9;145:1,3;146:11;
150:1;158:19;159:2
infrastructure (7)
20:12;24:14,18,20;25:11,
13;38:17
initial (3)
19:15;63:19;68:11

initially (1)
19:14
input (5)
84:8;87:7;125:15;138:21;
140:8
insert (1)
127:13
inside (3)
25:9;40:7;53:5
install (8)
17:5;106:3;107:16;
117:12;130:6;131:5;
141:12;153:3
installed (6)
30:18;34:19;52:1;120:19;
130:2;141:11
installs (1)
107:18
instance (27)
14:11;15:7,18;27:2;
30:20;33:21;50:4,5;51:20;
76:3;84:15;91:4;95:15;
104:9,18;116:12;120:2;
121:1;125:13;126:10;
127:3;130:16;136:20;
142:9;147:7;148:4;159:1
instances (1)
27:3
instead (2)
84:16;93:4
instruct (1)
79:11
instructed (1)
95:1
instructing (1)
69:4
instruction (2)
43:19;95:20
instructor (2)
69:1;71:6
instructors (1)
68:11
insulation (1)
24:17
insurance (1)
18:20
integrated (2)
41:20;137:10
intel (4)
99:2;116:8,8;130:9
intellectual (1)
111:15
intelligence (1)
94:15
intend (2)
152:6;156:4
intended (1)
153:9
intends (2)
114:20;124:12
intensive (1)
41:10
intent (10)

107:15;152:6;153:6;
155:10;157:8,14;158:1,8,
10,14
interact (3)
17:21;18:12;19:5
interaction (2)
21:18;104:17
interconnect (1)
15:5
interested (1)
116:12
interface (3)
13:7;154:3;155:1
Internet (4)
17:3;18:6;99:3;132:18
interpretation (1)
34:3
into (46)
6:15;8:14;12:11;18:15;
20:3;22:5;29:18;47:20;
65:6,18;67:9;71:11;73:11;
74:19;76:14,18;83:4,6,9;
86:14,19;93:4;108:3;112:5;
114:19;119:1;122:10;
127:17,18;130:11,12;
135:17,18,19;136:9,11;
137:10;139:1;140:2;
143:13;145:7;152:20;
153:17,20;154:14;163:15
introduced (1)
163:9
introduces (1)
74:18
introductory (1)
96:11
intrusion (1)
70:21
intrusions (1)
62:20
invest (1)
127:20
involve (1)
95:12
involved (3)
19:13;21:5;28:18
involvement (1)
24:3
involves (1)
70:14
IO (9)
61:14,18,20;62:8,18;
63:3;65:1;71:4;73:1
IP (2)
11:1;38:5
Iraq (63)
11:19;12:8;14:12;16:16;
20:7;21:9,21;22:7;25:14,
21;26:8,10;29:2;30:21;
32:14;33:2;34:18,19,19;
35:6,13;36:8,17;37:1,10;
38:5,21;40:7;46:6,20;
49:16;51:7,14,18;56:14,19;
57:19;73:11;75:11;76:17,

21;77:1,2,17;78:5;79:19;
81:5,20;83:10;92:6;110:6;
121:4,21;125:4,17;138:14;
139:1;142:15;144:4,9;
153:11;154:3;155:1
Iraqcentcommil (3)
14:12;33:3;125:1
Iraqi (3)
45:2;56:18;123:17
Iraqicentcommil (1)
124:3
issue (7)
40:17;78:16;88:20;
128:18;153:5;159:1;165:20
issues (6)
5:3;8:10;90:9;91:13;
93:4;164:11
ITT (1)
29:1

J

Jack (1)
130:16
Jeffrey (1)
143:19
JNCCI (2)
21:13;28:8
job (1)
129:19
Joe (2)
112:8,9
John (3)
84:18,18;120:3
Johnblack@iraqcentcommil (1)
121:2
JohnIraqcentcommill (1)
121:1
Johnsmith (2)
85:1;144:19
Johnsmith1 (1)
144:19
Johnsmith2 (1)
144:19
Johnsmith3@2BCT1ID (1)
85:3
Johnson (1)
143:20
join (1)
15:9
Joint (3)
1:10;12:12;14:14
JOSEPH (1)
3:5
JOSHUA (1)
3:12
JRTC (2)
65:2;106:2
Judge (2)
1:18;151:7
July (3)
166:1,7,13
June (4)

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

1:16;4:2;5:11;6:10
junior (1)
  119:3

K

keep (5)
  27:15;39:3;58:14;83:15;
  96:15
keeper (1)
  35:1
kept (1)
  152:14
key (2)
  60:5;111:5
kicked (1)
  82:11
kid (1)
  152:18
kind (10)
  17:20;27:14;68:1,19;
  71:2;72:14;89:4;110:17;
  120:19;134:2
knew (2)
  54:21;123:4
knowledge (23)
  19:18;23:16;60:20;70:4;
  78:1;79:15;90:13;96:2;
  99:7;105:12;110:1;124:17;
  128:9;138:13,20;139:4;
  146:2;150:4,7;151:21;
  154:5;155:2;161:6
known (6)
  69:10;71:16;113:9;
  143:14,15;148:9
knows (2)
  81:5;128:11

L

lack (1)
  37:9
lag (1)
  46:16
laid (1)
  81:4
land (3)
  10:3;45:2;66:11
lanes (1)
  89:18
language (3)
  125:12;140:21;141:3
languages (2)
  125:14;141:9
laptops (1)
  104:4
large (4)
  75:18;82:8;92:7;143:20
larger (2)
  83:16;92:3
last (14)
  5:5;11:18;34:6;59:11;
  73:11;86:6;108:10;120:21;

125:1;128:16;151:17;
153:11;158:6;165:12
later (3)
  63:11;64:12;109:3
lawyers (1)
  60:20
lay (1)
  81:10
laying (3)
  103:2;126:17;128:10
layman (1)
  68:17
layout (1)
  101:12
lazy (1)
  140:4
learn (1)
  140:9
least (7)
  27:21;76:9;77:20;92:14;
  109:20;113:7,14
leave (1)
  47:15
left (4)
  44:4;84:13;122:14;
  153:11
legible (1)
  5:15
lenablackbox (1)
  125:1
length (1)
  166:12
Lennox (1)
  130:1
less (4)
  44:14;119:6;139:12;
  140:15
letters (1)
  132:7
level (34)
  9:19;11:9,11,12,13;16:4;
  47:9,11,11,16;53:19;58:2;
  65:15;66:21;67:1;70:19;
  72:2,5,10,11;73:2,17;74:6;
  77:7,11;80:4;83:21;84:1;
  89:20;92:10,13;96:8,11;
  110:20
levels (2)
  15:20;17:12
Liberty (3)
  73:18;74:3;75:1
license (2)
  26:21;27:10
licenses (4)
  25:21;26:18,19;27:6
lieu (1)
  163:10
Lieutenant (2)
  61:20;106:17
life (1)
  98:11
light (1)
  147:12

likelihood (1)
  125:21
likely (1)
  144:11
likes (2)
  146:12;147:18
limit (1)
  76:1
limited (3)
  74:12;75:16;89:19
Lind (1)
  1:18
line (8)
  39:18,18;120:2;123:21;
  124:1,6,6;131:14
line-by-line (1)
  55:5
lines (1)
  45:2
link (13)
  104:14;105:4;106:11,17;
  107:15,18;108:2,7;110:10;
  111:19;117:11;126:13;
  127:11
linked (5)
  49:18;50:7;51:1,2,4
links (4)
  106:3,8,13;126:6
list (52)
  12:14,16,18,21;13:1,5,6;
  18:11;36:16;39:18;40:2,3;
  42:5,11,15;45:11;51:21;
  54:5;56:7,8;77:13,14,14;
  83:1,2;86:8;90:17;91:13,
  21;92:2;99:2,20;104:2,5,19;
  109:9,10;111:5,6;112:11,
  18;113:1;116:19,21;
  142:21;145:14;146:20;
  150:6;151:6;152:19;
  155:18;156:20
listed (1)
  125:2
listen (1)
  115:14
listening (2)
  2:6;107:21
lists (3)
  81:12;86:7;112:3
literally (1)
  9:18
little (12)
  11:18;25:17;41:18;46:9;
  48:18;56:7;64:7;94:11;
  130:19;132:16;134:8;159:8
live (1)
  2:7
load (1)
  131:7
local (10)
  28:12;72:13,14;90:15;
  91:17,19,20;135:10,21;
  160:18
locally (3)

135:10,20;136:5
location (2)
  75:2;145:7
lock (1)
  39:5
log (8)
  18:6;86:14;117:3;135:10,
  19;142:11;153:13;158:17
logged (2)
  136:5;151:5
logging (1)
  142:3
logical (1)
  156:15
logically (1)
  55:4
login (2)
  117:4,5
logs (2)
  88:17;137:16
long (6)
  38:20;53:14;69:1;91:1;
  162:5;166:14
longer (3)
  47:6;125:5;138:3
look (23)
  5:17;8:14;32:13,18;40:2;
  48:5;49:7;50:8,9,9;53:16;
  63:20;95:19;96:13;116:14;
  117:8;122:7;131:12,16;
  133:19,20;134:8;143:7
looked (6)
  98:6;100:18,21;113:10;
  119:18;134:11
looking (17)
  5:14;14:16;25:6;32:13;
  33:21;65:13;67:10;68:2,2,
  20;103:16;104:20;112:7;
  123:5;134:5;135:20;166:10
looks (2)
  131:20;132:16
loss (1)
  23:3
lot (28)
  18:15;51:1;64:1;65:12;
  66:12;68:1,12;70:17;71:19;
  74:20;76:3;82:9;90:21;
  94:11,13;108:20;109:2,12;
  116:5;128:21;137:9;140:6,
  15;141:10;142:12,19;
  146:11,13
Louis (1)
  124:12
low (3)
  47:11;111:2,5
lower (4)
  47:9,16;75:8;109:8
lowest (1)
  110:20
luck (1)
  71:12

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

M

ma'am (36)
8:7,11;55:11;59:4,16;
60:2,6,12,13;78:11;81:9;
94:6;102:8;103:3;112:21;
113:4;114:18;118:2,10;
128:17;134:15;148:19;
159:13;161:1,2,8,16,20;
162:20;163:2;165:4,17,18;
166:15,18,19
machine (38)
13:3;14:1;17:2,5,6;30:2;
48:6;107:17,20,21;108:1;
127:15;135:9;136:2,4,18;
148:9;150:15,17,18,18,21;
152:1,8,8,11,14,15,17,17;
153:4,17;156:3;159:17;
160:7,8,9,12
machines (3)
153:4;159:20;160:14
Macro (1)
96:12
mail (25)
72:7;77:9;84:14,20;86:6,
16;103:16;108:16,17,21;
109:1,1;110:7,9;123:13,14;
132:19;153:6;154:2,11,13,
13,14,16;155:1
mailbox (3)
83:5;86:16;110:3
mailboxes (1)
83:4
mailmil (1)
50:20
mailmill (1)
123:1
mails (1)
88:21
maining (1)
130:19
maintain (11)
17:19;22:6;27:19,19;
30:12;35:7;43:1;54:3;
58:17;90:12,15
maintained (2)
30:17;35:6
maintaining (2)
30:10;89:12
maintenance (6)
23:6;27:14;28:15;30:5;
62:7;118:18
MAJOR (114)
3:4,13;5:5,8,16;7:6,11,15;
8:11,16;9:1,9;19:21;20:2;
21:4,14;23:15;24:2;29:11;
30:9,14;31:9,11,14,21;32:4,
6;34:9,11;35:3;36:11,13;
37:20;39:13,15;40:8,9,21;
49:8,11;51:3;55:12,14;
57:1;60:12,16;61:1,12;78:2,
4,19,21;81:3,9,19;84:6;

87:21;88:13;93:14;94:6;
102:5,8,18;103:3,7,11;
106:21;112:15,21;113:4;
114:18;115:3,6,18;117:13,
16;118:2,10,12,14;119:10,
13;120:6,9;124:9,20;128:8,
15,17;129:2;134:15,17;
149:17;151:1,12,16;154:6,
20;155:3;157:16;158:5;
161:1,16,20;162:17,20;
163:11,14;165:4,10,17,19;
166:15,18
majorities (1)
112:12
making (1)
47:9
makings (1)
42:6
malicious (4)
71:20;107:15;127:17;
128:13
maliciously (1)
153:9
mallware (5)
69:16;71:20;106:3;
110:11;117:12
man (1)
128:5
manage (5)
9:18;24:7;74:19;75:2;
77:2
managed (7)
21:10,11;24:9;62:15;
73:16,19;119:9
Management (12)
9:15;10:13;11:5;24:6;
26:4,17;53:1;72:13;77:8;
86:2;88:12,14
manager (1)
72:2
manages (4)
17:12;62:18;63:4;76:20
mandatory (1)
127:20
MANNING (2)
1:6;163:9
manual (1)
57:11
many (24)
13:14;19:9,13;20:19;
22:1,8;23:4;26:18;27:6;
28:18;29:6;31:5;38:2;39:9,
16;55:15,19;79:1;92:5;
105:3;109:16;127:10;
135:11;138:21
market (6)
103:15;113:6,6,8,10;
114:9
markets (1)
113:5
Maryland (1)
1:17
massive (1)

24:14
master (1)
120:3
matched (2)
39:17;54:10
matter (2)
1:15;75:19
Maxwell (1)
5:10
may (20)
2:13;49:8;54:16;73:7;
76:4;78:19;90:5;101:11;
103:7;117:13;134:15;
135:14;136:2;142:6,9;
145:15;151:12;152:9;
166:11,12
maybe (3)
48:16;64:7;96:11
Meade (3)
1:17;73:5;74:13
mean (22)
25:1;40:14;42:13;44:10;
48:11;61:21;65:10;69:8;
70:12;74:9;75:16;84:8;
87:17;88:15;91:21;107:12;
108:5;111:10;125:11;
132:13;143:16;149:3
means (1)
16:16
measured (3)
113:17,18;114:7
mechanicals (1)
160:2
media (2)
2:6;128:6
meet (3)
46:4;64:10;67:4
meg (1)
89:4
megs (1)
157:2
members (1)
104:6
memory (1)
22:15
mentioned (6)
108:4;110:13;126:7;
134:4;139:20;146:4
meritorious (1)
123:8
mess (1)
106:15
messages (1)
132:9
met (1)
162:8
method (1)
99:17
methodology (5)
62:6;95:17;116:7;117:9;
131:3
methods (2)
101:18;107:5

MF (1)
121:12
MFI (1)
120:4
MI (1)
94:16
Microsoft (30)
15:4;16:3;25:20;26:20;
27:3,4,18,21;70:1,3;71:7,
12,14,18;77:5,8,9,9;79:2,3,
5,9,10,16;81:5;89:14;96:11;
112:6;130:5;140:19
Microsoft's (1)
108:11
mid (1)
102:19
middle (2)
47:15;134:1
might (23)
7:15;16:12;64:2;76:6;
86:12;90:10;98:3;111:3,5,
6;116:8;127:11;130:17;
140:13;143:20;145:13,19;
146:4;158:16,20;160:4,6;
164:11
mil (3)
125:18;143:7;144:3
military (22)
28:7;29:3,9;30:6;34:6,15;
71:10;103:21;104:6;
109:11;110:12;111:12,13,
14,21;112:9,10;126:5;
143:16;156:1;159:19;160:1
mill (2)
122:1;125:18
mine (3)
60:11;143:18;160:21
minimizing (1)
132:17
minutes (8)
7:10;87:2;90:16;139:11;
140:10,15;162:3,5
mIRC (13)
132:21;133:2,5,7,18,21;
134:6,7,9,10,12,13,14
mirrors (1)
111:1
missing (1)
2:16
mission (6)
62:3,8;63:6,15;105:20;
110:21
missions (2)
62:3;76:2
misspelled (1)
2:15
MNCI (5)
12:11;76:16,17;77:2;
83:19
MNDB (2)
73:13;123:6
MNFI (1)
12:11

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

model (2)
68:5;110:21
moment (7)
45:9;90:9;101:10;117:14;
134:15;147:1;151:13
momentarily (1)
8:8
moments (1)
149:18
Monday (1)
1:16
monetary (8)
95:20;97:14;98:8;99:4,6;
103:14;114:2;116:2
money (5)
109:18,18;113:3,5;
165:13
monitoring (2)
76:7;156:18
month (1)
64:7
months (3)
63:16;64:12;67:6
more (24)
17:6;63:5;74:12;76:1;
89:18;91:20;92:1;98:14;
100:8,9;103:19;104:15;
108:10;110:9;111:7;112:5;
113:11;124:6;141:1;
145:12;146:11,19;160:13;
163:15
morning (1)
100:19
morphed (1)
76:17
MORROW (4)
3:5;5:21;6:7,12
MOS (3)
66:6,18;67:13
most (7)
13:7;19:8;76:13;85:7;
140:3;144:10;156:21
motions (2)
166:11,11
motto (2)
130:16;146:5
mottos (1)
146:8
Mountain (7)
104:3,19;109:11;115:10;
116:1;123:4;139:8
move (10)
19:21;112:16;114:19;
115:2;128:19;148:20;
152:1;160:1,8;165:1
moved (3)
7:18;25:14;152:16
movement (1)
56:10
moves (3)
6:13;8:3;132:17
movies (2)
136:20,21

moving (4)
115:4;150:18,19;160:12
MRE073 (1)
102:1
MRE702 (1)
101:15
MRX (1)
64:13
MSRC (2)
71:18;72:4
much (32)
21:15;31:3,3;37:5,5;64:8;
74:7,12;76:1;86:20;89:18,
21;90:10;92:3;100:1,8,9;
103:19;104:15;109:7,8;
112:12;113:12;115:8,9,20;
127:20;129:13;138:21;
139:5;145:17;146:19
Multinational (1)
19:16
multiple (2)
26:11;132:15
multiply (1)
25:7
must (2)
85:10,11
mutual (1)
123:15
Myer (1)
1:11
Myer-Henderson (1)
1:10
myself (2)
27:10;84:15

N

name (21)
14:19;16:16;33:1;34:1,6,
6;37:1,10;52:7;59:11;86:5,
6;119:19,21;125:1;127:14;
138:1;141:18,18;143:19;
149:21
named (1)
33:4
names (28)
2:15;32:14;33:11,18;
38:7,16,19;39:4,16,17,20;
40:1,2,2;54:9,15;56:1,4,6;
59:20;60:8;73:21;106:19;
121:19;130:14;143:17;
144:18;145:21
narrow (1)
89:18
nation (2)
111:8,10
nature (3)
98:1,12;108:9
NCO (1)
119:3
nearer (1)
98:11
nearly (1)

35:10
necessarily (5)
38:14;78:15;105:9;
119:21;156:6
necessary (1)
82:12
need (24)
5:3;40:14;42:16,17;
64:20;82:7,8;84:9;86:7;
93:8;96:15;121:19;136:10,
14;141:13,21;154:14;
155:15;156:2;160:20;
161:18;162:1;165:7,15
needed (3)
66:13,15;82:2
needs (1)
67:20
nefarious (1)
148:3
Negative (1)
153:15
negotiating (1)
163:5
network (68)
10:3,4,13,20;11:4;12:7;
17:11,14;18:20;20:5,5,11;
31:2;33:2;37:10;40:20;
43:16;45:15;49:5;55:16,20;
58:17;63:10,17,20;64:16;
65:14;67:7,10;68:18,20;
70:15,16,16,18;72:13,14;
73:17;74:3,4,7,8,11,13;
75:7,8,13,15,20;76:2,8,10;
88:8,9;92:21;105:9;109:6;
122:2;135:10,17,18,19;
143:3;144:5;145:3,5;
150:14;153:18
networking (2)
25:9;62:5
networks (15)
9:18;62:11,21;65:13,20;
74:10,11;75:12;77:17;
88:19;93:16;100:8;111:12,
14;137:6
new (1)
127:5
next (7)
5:16;84:3;91:6;164:3,8,
10,13
nexus (4)
20:8,14,15;35:8
night (1)
98:15
nine (1)
63:16
NIPR (11)
19:9;30:17;31:6;40:11;
75:4;76:9,10;77:18,20;
81:21;151:21
NIPRnet (18)
20:7,19;22:2,7;27:2;
30:17;40:19;66:1,4;76:11;
78:7,8;79:17;122:2;144:4;

153:20;159:17;161:13
NIXON (10)
4:4;9:2,4,10;18:16;31:15;
32:7;33:10;36:14;55:15
NMDB (2)
122:8;123:5
Nobody (1)
82:18
nondomain (1)
142:3
none (5)
24:4;36:7;55:17,21;
116:17
nor (2)
94:1;101:16
normal (7)
20:11;117:9;131:7,14;
137:5;146:19;154:11
normally (12)
52:15;57:10;85:6,20;
92:3;103:17;109:13,13;
119:2;127:19;143:1;155:13
north (1)
25:15
Norton (1)
153:3
NOSK (1)
139:9
noted (1)
161:14
notes (1)
2:14
notify (2)
115:3;166:4
notifying (1)
166:5
Novembers (1)
66:19
NSA (1)
160:6
number (17)
13:13;25:3;26:21;27:11;
31:12;40:15;50:21;56:8;
69:20;82:8;84:17;86:12;
92:7;99:9;118:19;127:17;
143:20
numbers (4)
44:17,18;45:1;106:20

O

object (8)
81:14;87:19;93:18;
101:14;105:11;115:11;
124:15;126:18
objected (1)
135:1
objecting (2)
81:16;166:3
objection (17)
6:16;8:6;19:17;21:2;
23:14,21;30:8;82:20;90:13;
93:21;94:2;101:12;114:19;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

157:16;161:4,10;166:10
objections (1)
162:13
obtain (2)
8:18;112:3
occur (2)
52:16;88:10
occurring (2)
42:15;93:10
occurs (1)
137:6
October/November (1)
100:16
Odierno (2)
40:3;54:13
Odierno's (2)
40:15;55:8
off (16)
42:11,13;47:17;49:5;
102:19;108:6;113:9;115:7;
122:8;125:17;149:11;
151:20;160:8;163:16;
164:7;166:2
offered (1)
162:19
offering (2)
102:10;124:10
offers (5)
5:8;6:1,7;93:14;113:20
OFFICER (12)
4:10;9:15;10:8;21:13;
61:7,13;66:14;95:3,4,5,7,8
officers (6)
67:16;68:3,7;73:13;
79:11;95:16
official (5)
2:4;95:7;110:4;133:4,5
Officially (2)
67:15;93:10
off-line (3)
150:12,12,12
often (5)
19:8;23:8;28:18;29:3;
109:21
once (7)
27:21;48:3;52:15;84:7;
87:7;130:3;132:15
one (66)
8:3;10:6,7;15:5,9,16;
17:8,17,17;21:13,13;23:2;
31:7,7,8;32:11;33:5,8;
36:21;43:13;45:17;50:10;
58:16;62:3,18;64:15;67:19;
68:10,11;69:15;73:12;75:2;
83:16;86:21;87:1;90:6;
91:3;92:1;94:18;96:8;
100:14;101:10;104:21;
107:5;116:3,5,7;117:7,8;
124:2,3;125:14;127:8,13;
130:8;132:4;134:1;137:13;
141:9,21;143:2;144:18;
145:7;147:1;153:7;165:19
ones (5)

23:6;32:13;35:9;162:16;
163:20
only (15)
17:1;35:20;51:7,19;66:3;
81:9;91:3;102:14;117:2;
131:8,9;133:17;141:19;
157:2;165:11
onto (1)
52:6
op (9)
62:4;65:1,5;105:20;
107:6;110:21;117:6;131:2,
10
open (16)
8:5;17:4;78:13;86:1,1;
99:2,12;102:15;103:15;
105:4;116:8;130:9;132:2;
136:6,19;147:15
opens (1)
107:19
operate (3)
33:2,5;80:7
operating (7)
33:4,5;35:11;37:18;
71:21;89:12;122:17
operation (2)
34:13;40:7
operational (2)
43:7;65:4
operations (7)
10:8,12,12;12:2,8;34:16;
54:2
opinion (5)
113:20,21;114:19;115:1,
20
opinions (1)
117:19
opportunity (2)
8:14;93:20
oral (2)
162:10;164:2
order (10)
2:10;8:4;18:19;30:21;
85:9;163:9,18;164:8;165:2,
5
orders (1)
138:4
organizations (3)
56:17;163:20;164:7
originally (2)
93:1;112:20
others (1)
70:11
otherwise (1)
131:20
OU (1)
37:21
Ours (1)
31:4
OUs (1)
37:15
out (55)
13:9;23:12,17;27:18;

29:1,13;39:4;47:17,18;
59:21;63:9,12,16,21;64:5,8,
14;66:4;67:20;82:12;86:3;
87:2,6,8;88:20;89:4;
104:14;105:1,4;106:6;
107:9;108:7;109:9;110:19;
117:9;121:4,8,9,11,13;
122:13;123:7,8,14;124:4;
125:5;140:11;141:19;
143:4;145:16;148:12;
149:10;157:14;163:1;165:2
outages (1)
43:16
outbound (1)
89:6
outlines (1)
2:13
Outlook (16)
13:7,20;14:1;18:7;19:7;
32:18;37:7;39:4;59:5,13;
77:3,3;78:13;79:16;81:5;
150:11
output (1)
32:10
outside (5)
20:12;57:13;67:9;82:14;
142:17
over (10)
19:16;22:11;23:19;24:5;
29:1;78:18;93:4;112:6;
113:11;165:20
overall (1)
28:14
OVERGAARD (1)
3:7
overhead (2)
22:20;47:12
overloading (1)
39:3
Overruled (10)
81:7,18;82:21;87:20;
90:14;105:17;124:19;
126:19;129:1;159:6
overruling (1)
161:10
oversight (3)
21:7;24:5,8
own (2)
74:6;153:16

P

Page (13)
4:4;8:3,4;111:4;130:7,8,
10,10,12;132:8;146:10,16;
147:14
pages (1)
148:13
paid (2)
23:11,12
PAO (6)
104:20;106:5;108:8;
123:12;127:8;129:14

part (35)
34:1;41:19;42:12;56:15,
16,17,20;58:19;59:3;64:21;
69:9;70:15,16,18;80:9;
105:8,20;106:17;110:17;
116:21;120:17,21;121:1;
131:6;135:16,20;136:4;
137:18;144:4;150:10;
154:11,15;156:9;161:9;
165:14
participation (1)
123:17
particular (3)
48:7;53:4;59:19
parties (8)
5:5;163:5,11,13,18;
164:19;165:13,21
partners (2)
75:10,13
parts (3)
59:16;85:18;164:4
party (1)
165:15
passed (1)
63:6
password (12)
14:19;16:16;117:5;
121:20;130:17;131:1;
136:8,14,15;141:19;143:4;
146:6
passwords (1)
130:15
past (2)
67:16;100:20
paste (2)
57:12;125:18
patch (1)
71:16
patches (1)
152:15
pattern (1)
127:5
patterns (2)
127:7,12
pay (3)
100:1;115:9,21
paying (1)
113:12
PDF (5)
105:1,4,4;123:15;126:14
peer (2)
99:18,19
pen (7)
67:8;68:15,16;70:9;73:5,
7;131:10
pending (1)
114:19
people (33)
13:14;19:9,13;28:18;
35:19,20;36:3,8,10;40:20;
44:11;47:16;48:8,9;49:4;
51:21;56:12;59:2,11;76:3;
93:5;110:10,14;119:6;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

122:11;126:11;131:9;
138:3,17;145:16;153:1;
156:7,21
per (4)
24:5;34:16;140:10;141:5
perform (1)
65:12
performed (1)
42:17
performs (2)
45:10;54:4
perimeter (5)
67:7;70:10,13,14,21
period (7)
43:4,15;46:20;47:2,4;
48:12;67:18
periodically (1)
89:5
permanent (1)
60:14
permission (6)
15:12;17:12;32:4;37:14;
119:10;120:6
permissions (2)
16:18,19
permitted (2)
2:5,7
person (7)
13:2;24:9;86:3,20;101:8;
153:9;158:11
personal (33)
19:18;23:16;78:1;79:15;
82:6;90:13;105:12;110:3;
123:5;140:3;150:8,9,17,18,
21;151:5,20;152:2,8,11,17,
17;153:13,16;154:1,15;
155:20;156:3;159:17,20;
160:2,9;161:13
personally (2)
54:18,19
personnel (17)
21:12,14;23:5;28:21;
29:9;41:12;43:21;48:15;
50:21;51:2;82:1;95:16;
109:11;126:5,12;142:14;
153:4
person's (1)
158:14
perspective (19)
14:7;18:3,5,13,14;28:4,5,
10,11,20;35:14,15,16;
40:18;52:21;53:2,3;121:15;
138:16
pertinent (3)
13:11;14:9;130:15
Peter (1)
6:3
PFC (2)
1:6;163:8
phone (6)
13:8,8,13;44:17;45:1;
74:14
phones (2)

44:21;72:6
physical (14)
22:5,8,10,12,13,20,21;
25:7;30:16;35:11;88:4;
89:11;153:8;157:7
piece (3)
11:16;40:17;47:12
pieces (1)
141:21
pinpoint (1)
44:5
pipes (1)
75:19
place (8)
2:6;15:9;19:16;29:21;
71:13;109:6;143:1;144:8
planning (5)
10:12;12:1,7;21:20;
156:14
plans (1)
10:8
platform (2)
26:12;27:20
plays (1)
152:18
Please (11)
8:21;19:11;60:19;88:3;
123:6,15;124:2;129:17;
147:1;148:20;161:5
pleased (1)
110:11
plug (1)
70:17
plugged (5)
76:14;135:17,18,19;
153:20
plugging (1)
153:21
plus (2)
14:12;28:21
pm (12)
1:16;5:2;7:13,14;61:4,5;
135:5,6;137:10;162:6,7;
166:21
PMs (1)
64:2
PO (1)
116:16
point (8)
29:17;44:16;48:7;68:6;
94:5;121:5;165:8;166:13
policies (1)
160:18
policy (1)
11:16
pool (5)
32:11;36:17;39:7;75:12;
89:19
pop (1)
137:11
populate (3)
53:19;85:9;148:12
populating (1)

87:3
population (1)
86:19
portion (6)
83:6;119:17;120:14;
121:12;122:19;149:21
portions (3)
69:12;89:14;122:10
position (6)
9:13,14;10:5;11:21;12:6;
61:17
possess (1)
10:16
possession (1)
122:14
possibility (1)
49:2
possible (1)
140:13
Possibly (1)
140:16
post (2)
46:14;137:12
posted (1)
46:16
posture (2)
64:1;68:20
potential (9)
68:20;85:10;86:7;88:17;
121:16;142:9;145:9;
152:13;166:12
potentially (3)
111:7;124:11;136:12
power (7)
22:21,21;24:21;88:5;
140:20;141:3,7
powerpoint (3)
89:4;90:9;160:5
pray (1)
46:19
preceding (1)
40:5
preference (1)
33:3
prep (1)
87:5
prepare (2)
63:17;165:13
present (4)
5:6;22:3;32:14;59:7
pretend (1)
104:9
pretending (1)
106:5
Pretty (7)
62:14;64:8;73:8;89:15;
95:6;143:14;144:14
prevent (6)
65:10;142:2;144:8;155:8;
160:11,19
prevented (1)
142:19
preventing (1)

69:16
prevention (1)
153:10
previously (1)
72:21
Primarily (3)
19:7;66:3;75:17
primary (18)
16:6,16,20;20:6,8,10,20;
24:15;30:19;31:7,7;35:9;
43:17;77:10;120:21;
137:11;140:20;141:2
principal (2)
155:17;156:16
principals (1)
101:17
print (2)
135:15,21
Prior (14)
7:18;10:5,7;15:6;30:9;
71:4,6;72:3,4,6;99:7;121:6;
141:11;166:1
Prism (1)
65:21
probability (1)
104:16
probably (8)
63:16;64:12;81:3;87:1;
112:4;121:6;134:8;143:18
problem (2)
43:11;158:18
problems (2)
43:14;88:17
procedure (1)
122:17
proceed (3)
5:4;8:21;32:5
proceedings (3)
2:6,9;5:1
process (10)
16:9;46:11;47:20;57:12,
13;64:4;66:21;109:14;
139:10;166:5
processes (1)
141:6
processor (1)
22:15
produce (2)
2:10;45:18
product (5)
12:21;18:7,10;42:4,9
products (4)
77:5;79:2,10;101:17
professional (1)
10:21
profit (2)
105:7,8
program (9)
71:10;72:2;107:17;128:1;
129:10,11;130:18;140:18;
148:11
programs (4)
18:17;71:9;128:20;136:1

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

prohibited (2)
57:6,9
prohibition (2)
141:5,7
prohibitive (1)
24:10
project (2)
111:18,20
projector (1)
129:4
prolonged (1)
43:14
promised (1)
106:18
prompt (3)
131:20;132:3;136:6
prong (1)
102:11
properly (2)
69:13;140:8
properties (1)
59:20
property (1)
111:15
proposed (1)
164:2
proposing (1)
103:1
Prosecution (39)
5:9,14,18,19;6:1,8,13,13,
18,19,20,21;7:1,2,16,19;
8:15,19;31:9,12,21;32:2;
33:9,14;34:9;36:11;39:13,
14;44:7;49:8,12;56:1;
118:13;119:11;129:5;
162:11,15;163:15;166:5
protect (1)
100:8
protected (1)
153:5
protecting (4)
64:11;66:17;110:5,8
protection (3)
66:9;69:13;105:16
protections (2)
142:2;144:8
provide (7)
66:15;72:17;73:1,2;
114:6;163:19;164:4
provided (1)
37:8
provides (1)
80:4
public (11)
37:9;40:10,12,17,20;
116:15,17;127:7;129:16;
142:10;150:2
publish (4)
32:4;49:8;119:11;120:7
pull (12)
48:4;50:13,14;51:6,7,18;
52:5,7;53:8;57:20,21;147:6
pulled (1)

39:4
pulls (4)
18:9;52:18;59:6;122:19
pumps (1)
46:3
purchase (2)
26:20,21
purpose (2)
16:1;34:14
purposes (4)
2:8,15;114:18;152:2
push (3)
18:18;60:3;138:5
pushed (2)
29:13;30:5
pushing (1)
52:20
put (19)
17:17;22:14,16;38:5;
47:20;71:11;74:10,15;
83:12;87:9;91:2,6;115:14;
123:16;130:3;144:19;
148:3;165:6;166:2
putting (1)
51:21
puzzle (1)
142:1
python (2)
125:14;141:9

Q

Qatar (1)
52:5
qualifications (1)
113:21
qualified (2)
81:11;93:19
qualify (1)
112:16
qualifying (1)
117:17
quality (1)
80:1
query (1)
147:12
queue (4)
88:19,21;89:2,6
queues (1)
89:3
quick (1)
60:5
quicker (1)
60:9
quickly (4)
34:8;86:9;107:2;121:8
quite (1)
52:4
quote (1)
159:21

R

raffle (1)
108:8
ran (3)
25:20;27:3;72:10
range (1)
118:21
Ranger (2)
112:8,9
ranges (1)
73:8
rank (1)
34:6
rather (4)
75:2;140:4,9;146:17
raw (1)
67:2
reach (1)
144:5
reached (1)
67:20
read (7)
5:9,12;6:6,11;131:18;
132:4,4
reading (1)
164:14
reads (1)
116:14
ready (3)
62:5;63:15;65:2
real (4)
35:6,7;137:13;144:21
realized (1)
66:10
realizing (1)
66:13
really (13)
11:7;15:17;71:18;72:20;
75:19;94:20;95:6;112:17;
136:17;137:16;138:8;
144:18;153:8
re-ask (1)
124:21
reason (5)
81:9;102:8;137:19;
141:12;152:10
reasons (2)
84:17;130:8
recall (4)
43:19;100:12,15;138:1
receipt (1)
86:18
receive (1)
127:1
received (2)
94:15,18
receivers (1)
110:7
receiving (1)
90:6
recent (1)
154:21
recently (3)
62:14;100:19;137:15

recess (9)
5:6,16;7:8,18;61:3;162:2,
4,5;166:20
recessed (4)
7:13;61:4;135:5;162:6
recesses (1)
164:3
recipients (1)
120:18
recognize (6)
31:15;32:7;33:15;56:4;
119:14;120:10
recognized (1)
56:9
reconvene (1)
164:9
Reconvened (1)
5:2
record (9)
5:9;123:20;134:19;161:9;
162:3,10;163:12;164:14;
166:2
recording (1)
2:8
recreation (1)
76:4
RECROSS (6)
4:8,16,18;57:3;151:3;
155:4
recurring (1)
30:3
red (6)
63:8,12,14;64:14,15;73:1
redacted (1)
8:4
redeployed (3)
46:21;47:3;49:4
REDIRECT (10)
4:7,15,17;55:12,13;
149:15,16;151:11,15;158:4
reduce (1)
22:19
reference (3)
34:2;116:20;151:17
refers (1)
10:3
reflect (2)
47:3;53:8
reflected (3)
39:9;51:14,17
regarding (2)
101:21;161:12
regardless (2)
40:20;153:10
regional (1)
62:15
registered (2)
35:17,19
regular (2)
38:11;55:9
regularly (1)
95:6
regulations (6)

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

16:21,21;34:16;150:7;
159:20;160:1
relates (1)
67:11
relationship (4)
15:21;17:15,16,20
relationships (2)
33:7;58:17
relatively (5)
90:16;121:8;123:10,12;
132:3
released (2)
116:17;121:17
relevance (8)
81:17;124:5,8,10;128:5,7,
8;162:13
relevant (2)
128:20;130:19
reliable (1)
101:17
relied (1)
102:3
remained (1)
162:21
remember (1)
100:17
remove (2)
129:3,4
renews (1)
112:16
repair (1)
152:9
Repeat (1)
115:16
rephrase (2)
57:6;128:17
replace (1)
98:14
replacement (1)
98:12
replicate (1)
23:3
replicated (4)
83:21;84:1;91:8;121:13
replication (1)
35:7
reply (1)
123:7
report (3)
64:6,18;154:1
reporter (7)
2:3,4,14,17;32:2;118:12;
129:5
reporter's (1)
134:5
reporting (1)
2:13
reports (1)
63:11
repository (1)
30:19
represents (1)
33:6

request (8)
73:5,7;85:11,12;86:3,18;
90:6;114:12
requested (1)
61:1
requesting (1)
86:4
requests (2)
73:3;135:3
require (9)
22:1;24:19;25:18;27:7,
15;42:21;53:19;82:10;
124:17
required (7)
11:14;25:19;26:18;31:5;
35:4;54:2;87:11
requirement (2)
25:8;92:18
requirements (3)
21:20;23:1;67:5
requires (3)
11:15;35:10;66:21
requiring (1)
41:12
research (1)
160:20
resides (1)
77:4
resource (2)
41:10;42:21
resources (16)
20:3;23:2;26:13;30:9,12;
35:4;53:21;87:10,15;88:2;
89:10,11,11;138:21;157:4,6
respect (4)
94:1;97:17;139:5;141:17
respond (2)
71:21;96:17
responding (1)
62:20
responds (1)
104:15
response (5)
63:2;71:8;104:17;107:9;
147:5
responsible (4)
62:6,19;69:17;110:7
rest (1)
136:20
restricted (1)
136:3
results (1)
102:17
resume (1)
67:1
resumed (4)
7:14;61:5;135:6;162:7
resumes (1)
164:12
Retract (1)
40:8
Retrieving (9)
31:9,21;32:2;33:9,14,15;

36:11;39:13,14
return (3)
47:15;129:4,4
Returning (1)
34:9
review (5)
11:10;89:6;99:19;164:19,
21
reviewed (4)
31:19;56:1;99:18,18
reviewing (1)
88:16
Reword (1)
19:11
right (24)
38:1;45:21;46:2;47:5;
48:1;54:11;65:12;67:17;
81:13;91:6;98:9;121:19;
134:7;135:18;136:19;
141:14,20;144:21;147:15;
158:9;161:3,17;163:5;
164:18
ring (1)
25:15
rings (1)
25:14
rip (1)
108:6
risk (4)
95:15,17,18,19
role (2)
68:8;73:14
rolling (1)
12:12
RONALD (4)
4:4;9:2,4,10
room (2)
2:6;88:6
roster (1)
106:19
rosters (1)
160:5
rotate (1)
125:5
rotated (3)
121:4;122:13;124:4
rotating (1)
121:10
ROUILLARD (20)
4:10;61:7,14;81:11;
93:15,19,21;94:9;101:20;
102:11;112:17;113:7;
115:7;117:17,19;118:15;
119:14;120:10;123:21;
128:9
Rouillard's (1)
113:20
router (1)
71:1
ruby (1)
141:9
ruin (1)
61:14

rule (9)
18:21;155:6,8,11;157:8,
10,11;159:14,14
rules (5)
150:19;151:8;155:11;
160:11;161:12
run (11)
13:18;22:7;26:10;47:6;
48:15;88:4;130:6,20;
132:11,14;136:1
rundown (1)
39:7
running (7)
87:14;132:6,10;134:6,7;
137:1;146:17
runs (3)
131:11;133:18;140:19

S

S1 (2)
106:16;137:21
S2 (1)
156:13
S6 (2)
85:6,8
S6s (1)
93:7
salaries (2)
23:11,12
sale (2)
99:3,10
same (32)
23:6;27:8,9;28:7,21;
35:10;44:10,10;47:14;49:4;
51:4;52:2;59:16;60:6,8;
64:8;80:5;84:18;90:3;91:3,
5;124:2;125:8;130:4;
132:20;135:11;139:7,19;
145:3;153:19;155:17;
156:16
SAN (3)
31:1,2,3
Sands (2)
69:10,11
sat (2)
100:17;139:17
satellite (2)
25:16;74:17
saved (1)
50:5
saw (8)
24:11;90:21;93:8,8;
100:15;127:4;133:17;
158:11
saying (7)
98:21;109:10;113:12;
155:11;158:17;159:11;
165:2
sayings (1)
22:19
scale (1)
10:11

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

scan (1)
66:3
scattered (1)
75:3
scenario (1)
42:20
schedule (1)
166:10
scope (5)
9:20;73:8;89:21;90:20;
126:17
scrape (1)
148:4
scrapes (1)
147:8
scraping (2)
146:10,16
screen (7)
36:21;50:9;59:21;131:12,
15,21;133:19
screwed (1)
119:8
script (12)
47:6,12;122:10;125:9,11,
14;130:11;140:8,10,17,18;
141:8
scripting (3)
125:12;141:3,8
scripts (3)
140:14;141:6,10
scrolling (1)
134:2
scrutinized (1)
155:19
se (2)
24:5;141:5
sea (1)
66:11
search (8)
38:12,20,21;51:21;52:9;
53:15;59:12;99:9
searches (3)
100:13;101:17,19
searching (1)
119:20
seat (1)
160:4
second (8)
7:9;74:5;102:11,14,17,
18;109:9;123:21
secondary (1)
24:15
secret (1)
9:19
secretary (1)
61:20
section (1)
21:13
secure (1)
27:16
secured (1)
156:11
securing (9)

11:8;68:14;69:7,8,16;
70:9,10,12,14
securities (1)
28:1
security (17)
10:18,21;14:18;17:7;
27:19;40:17;68:9;71:8,18;
88:11;94:2;106:20;109:12;
134:21;137:19;138:2,5
seek (1)
116:4
sees (1)
34:13
select (1)
127:12
selected (2)
68:11;152:9
selection (1)
127:6
sell (6)
97:5;99:15,21;103:14,15;
112:7
selling (2)
99:8;100:10
sells (1)
112:10
send (18)
55:16,19;77:15;88:20;
104:13;105:1,4;106:6;
107:9;108:7;109:3,9;117:9;
123:14;126:13;145:16,19;
164:6
sending (1)
89:4
senior (6)
9:14;10:7;12:1;61:19,21;
73:12
sense (2)
2:16;13:8
sentencing (2)
166:1,4
separate (2)
75:12;89:10
separated (1)
89:15
sequence (2)
91:2;143:21
Sergeant (2)
6:3;120:3
series (1)
166:8
serious (2)
110:9;157:1
server (76)
12:17;13:17;14:3,4;16:3,
4,10,20;18:9,20;20:10,17;
22:6,12,13,17,19;23:4;
24:14,20;25:13;26:14,15;
27:4;36:17;41:11;42:21;
59:5,6;72:7;77:8;79:12;
83:5,7,8,10;85:3;87:15,18;
88:2,4,5,6,6,12,15;90:3;
91:20;92:1,2,9;98:13;

108:19,21;109:1;120:16;
121:13,20,21;122:2,6,9,11;
123:13,14;141:4,4;142:10,
11,13,16;144:2,6,7;155:12;
156:9
servers (45)
13:18;15:4,10,11,16;
17:17;20:17;22:1,6,8,9,10,
11;23:1,9;25:8,18,19,20;
26:12;30:20;32:11;42:7;
54:7;58:16,18;70:19;72:12;
74:21;82:16;83:13,13;84:4;
88:8,10,17;92:5,19;93:2,7,
13;98:11;122:6;144:4,9
serves (1)
101:21
service (7)
15:4,14,15;21:6;23:3;
29:15;41:20
services (30)
10:13;13:9;15:8;16:3,21;
21:8,12,21;26:3,9,10;34:18;
35:9;41:15;52:1,2;53:1;
54:8;65:15;70:18,19;72:10,
16;73:17;74:6;77:8,11;
80:5;136:3;156:10
serving (1)
35:12
set (21)
11:15;14:9,14;16:20;
17:17;18:21;32:17;37:7,14;
46:17;48:9,13;58:12;67:2;
75:14;90:5;109:13;138:9,9,
14;164:13
sets (3)
15:12;17:9,12
setting (2)
76:8;102:7
SFI (1)
51:4
share (10)
23:2;26:12;75:9;84:5;
136:12,13,19;137:4;138:6,9
shared (7)
45:13,14;91:4,21;136:11;
137:7;138:11
SharePoint (18)
15:11;16:11;70:20;72:12;
77:10;80:11;129:12;136:3;
142:13,15;148:4,5,6;
155:12;156:8,12;157:3;
160:3
sharing (1)
77:10
sheet (1)
87:5
shell (3)
140:20;141:3,8
shoot (1)
91:10
short (1)
121:7
show (5)

16:14;46:4;49:18,21;50:2
showing (1)
123:19
shows (1)
32:18
side (1)
134:1
sides (1)
163:7
sierra (9)
66:7,18;67:5,13,16;
68:12;69:2;107:5;110:17
sierras (1)
70:8
signal (9)
66:14,20;68:3,6;74:16;
79:10,10;80:4;122:18
signaling (1)
74:19
signed (1)
106:10
signify (1)
11:2
similar (14)
10:11;27:9;35:10;59:13;
66:11;68:7;74:11;106:4;
118:3;119:6;120:18;123:2;
126:14;145:2
simple (4)
83:15;99:8;125:12;
133:17
simply (3)
17:17;81:10;102:9
simulate (2)
64:15;105:21
simulating (1)
65:5
single (10)
26:12;29:8;73:7;74:3;
84:1;86:20;92:2,2;127:5;
145:12
SIPR (3)
75:4,9;77:18
SIPRnet (5)
30:18;65:21;66:3;153:20;
156:12
sit (8)
14:20;48:19;64:8;84:2,3;
86:1;88:7;108:17
site (16)
20:10,21;34:12;35:5;
65:5;74:17;100:1,2;127:6,
18;129:12;130:9;148:6;
152:18;153:2;160:3
sites (3)
24:16;101:2,4
sitting (3)
29:9;91:6;134:4
six (7)
21:14;67:6;70:6;91:12;
132:3;140:7,9
size (3)
43:17;48:17;148:5

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

sizes (1)
23:20
skill (2)
11:15;67:2
skilled (1)
111:2
skills (1)
67:12
slash (1)
125:16
slide (1)
89:4
slides (2)
90:10;160:5
small (3)
50:21;123:15;132:3
smaller (1)
59:12
smart (1)
117:3
Smith (3)
84:18;85:1;143:20
Smiths (1)
84:18
SMPT (1)
37:1
SMTP (1)
108:18
snapshot (2)
48:21;49:3
snowboard (1)
146:12
SNPT (1)
32:18
social (6)
64:17;106:20;126:7,8;
128:3,6
software (14)
18:17;19:5;22:18,18;
25:17,18;26:7,14,16;27:11;
52:14;57:13;71:20;87:14
sold (2)
96:21;101:7
Soldier (11)
46:12;76:12;85:17;86:20;
89:11;90:11;118:21;149:1;
151:21;159:9,11
soldiers (12)
80:6;82:9,9;87:11,13;
105:3;112:8;118:20,20;
127:10;138:15;150:5
solutions (1)
77:6
somebody (17)
16:5;29:18;34:7;55:15,
18;84:3;89:3,5;90:18;91:9;
100:10;104:14;106:19;
112:13;139:8,8;143:18
somebody's (1)
34:1
someone (14)
33:20;42:15;47:3,14;
107:14;110:11;122:13;

124:4;140:13;144:9;
145:19;146:4;150:7;158:20
sometimes (3)
28:1;87:4;136:17
somewhat (2)
140:21;143:19
somewhere (1)
160:17
sonic (2)
25:14,15
soon (2)
8:18;90:17
sorry (6)
80:12;89:9;115:17;
128:15;133:11;159:21
sort (4)
97:16;140:17;143:12;
149:9
sorts (1)
95:13
sound (1)
135:7
Sounds (1)
161:17
source (12)
99:2,12;102:14,15,15,17,
17,18;116:8;123:11;130:9;
147:15
sources (3)
102:13;103:12;113:13
south (1)
25:15
southern (1)
62:18
space (5)
33:1,2;35:11;41:11;42:21
spaces (2)
33:4,5
spam (4)
108:20;109:5,14;110:9
span (1)
103:16
spanned (1)
74:4
spanware (1)
111:6
speak (4)
83:18;108:7;112:14;
154:9
speaking (1)
50:13
spear (23)
104:10,12,15;105:6,12,
19;106:1,17;107:2,8;
108:13;109:7,17,19;110:13;
115:8,19;117:10;122:16;
123:2,10;125:4;152:20
Special (3)
6:9;7:21;56:7
Specialist (2)
85:21;119:2
specialization (2)
68:13,14

specialized (3)
96:2;124:17;128:9
specific (10)
57:17;104:1,2;108:15;
116:19;136:2;138:2;144:2;
156:18;159:14
specifically (5)
68:16;89:8;96:10;105:19;
141:16
specifying (1)
88:18
speculative (1)
157:17
speed (2)
20:16;139:19
spend (3)
21:15;91:11;118:20
spending (2)
86:21;90:12
spillage (1)
153:18
spillages (1)
62:21
split (1)
140:10
spoke (4)
69:18;87:11;94:11,13
spread (2)
29:1;87:5
spyware (1)
128:14
squint (1)
132:1
squinted (1)
131:18
stack (1)
20:9
stacks (1)
26:10
Staff (7)
6:3;28:8,21;29:3;30:6;
48:18;82:1
stages (1)
64:15
stand (7)
9:2;37:21;63:16;65:3;
93:7;114:4;123:13
standard (9)
11:7;25:4;34:5;69:14;
119:19;122:17;137:5;
142:12;146:18
standardize (1)
70:8
standards (1)
69:10
standing (2)
74:6;132:5
standpoint (3)
14:17;30:1;158:15
star (2)
12:12;40:6
star's (1)
12:10

start (3)
41:6;60:8;121:6
started (7)
67:15,18;69:21;92:16;
93:10;100:12;135:7
starts (1)
110:19
state (2)
111:8,10
STATES (38)
1:2,4;5:8,17;6:1,7;7:18;
8:2,16;9:2;36:3,5;61:1,14,
18;62:16,17;93:14;95:8;
102:9;110:12,16;111:17;
112:15;113:7,16,19;114:19,
20;117:17,18;118:2;124:9,
12;134:17;164:1;166:2,4
static (2)
129:11,15
station (8)
46:14;51:13;64:20;77:4;
87:13;90:5;137:17,18
stationed (2)
56:12;146:13
stations (1)
51:10
status (2)
132:9;164:10
stay (1)
111:12
stayed (1)
91:2
steal (1)
111:14
step (1)
84:7
steps (1)
139:10
still (18)
8:16;42:21;47:2;63:4,7;
69:4;106:8,11;123:2;
135:11,17,21;136:1,1;
137:6;159:7;161:7;162:1
stipulated (1)
7:21
stipulation (6)
5:10,12;6:2,6,8,11
stipulations (8)
163:6,8,16,17,19;164:5,
10,14
stitches (1)
35:8
stole (1)
106:19
stone (1)
85:21
stop (4)
42:14;109:1,14;153:8
storage (4)
30:16;31:2,3;35:10
stored (3)
30:7,15;32:15
strategic (3)

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

9:21;29:7;73:4
stream (1)
  39:7
string (4)
  32:17,17,18,20
stringent (1)
  116:16
strip (2)
  125:17;140:1
structure (10)
  14:21;17:9;20:7;24:16;
  25:16;26:4;37:15,19;38:15;
  72:19
structured (3)
  58:14,15;59:1
Stuart (1)
  51:14
studies (1)
  97:16
stuff (5)
  72:14;95:16;106:15;
  108:20;142:21
style (1)
  72:16
subject (1)
  99:18
submit (1)
  67:1
subscription (1)
  109:14
subsequent (1)
  128:10
subset (1)
  42:2
substantially (1)
  44:14
successful (1)
  68:5
successors (1)
  79:7
suck (1)
  157:4
sufficient (2)
  7:10;101:16
suggest (2)
  102:1;157:14
suggested (1)
  64:10
suite (2)
  22:6;25:20
suiter (1)
  71:11
suites (1)
  20:10
sum (1)
  72:15
supplement (1)
  114:8
supply (1)
  97:20
support (10)
  10:12;12:8;17:7;20:16;
  27:4,5,12;73:2,2;75:20

supported (4)
  20:10;25:9;29:8;73:18
supportive (1)
  26:4
supports (2)
  88:6;112:1
sure (16)
  45:21;47:9;58:3,11,16;
  60:17;72:20;89:3,3;92:8;
  94:20;95:6;116:16;139:14;
  144:17;146:9
surfing (1)
  76:4
survey (1)
  127:7
Susan (1)
  143:20
Sustain (1)
  23:21
Sustained (2)
  21:3;43:14
sweeps (1)
  68:1
switch (3)
  20:14,15;24:18
switches (3)
  20:8,12;35:8
switching (1)
  20:16
sworn (2)
  9:5;61:8
symbol (1)
  150:1
sync (2)
  52:1;53:15
syncing (1)
  52:3
system (31)
  13:21;14:2;16:20;17:13;
  18:13,14,15,15,21;19:3;
  28:13;39:3,5;47:21;48:3;
  56:5;69:21;72:4;80:2,2;
  107:11,13;137:9,16;138:1,
  2,3;141:6,8;156:1;157:1
systems (23)
  9:21;27:1;63:17;64:1;
  65:6,19;71:21;74:15;79:21;
  80:7;92:17;93:9,15;108:14,
  16,17;109:4,5;110:12;
  112:7;133:17;137:10;
  138:17

T

tactical (14)
  9:20;10:11;63:9;72:16;
  74:10,10,14;75:21;76:8;
  80:3;88:19;106:4;143:10;
  148:2
tag (1)
  34:7
talk (25)
  11:18;12:14;15:5,12,13,

16,19;16:5;17:10,11;20:3;
25:17;33:7;43:3;58:16;
85:4;88:10,14;93:5;102:10;
124:13;128:20;146:11;
162:1,9
talked (12)
  15:1;26:3;54:1;89:13;
  139:3;141:15,16;143:12;
  145:18;147:13;158:8,8
talking (22)
  12:17,18;22:5,10;28:3,4,
  20;29:10,11;30:1;48:13;
  60:7;65:20;81:8;88:2;
  124:16;137:17;141:15;
  146:9;159:16;162:15,15
talks (1)
  16:8
target (7)
  104:8;106:5;109:7;122:5;
  123:3;126:5,10
targeted (7)
  38:13;104:11,16;106:7;
  109:9;112:10;146:20
targeting (1)
  152:20
targets (1)
  103:21
task (3)
  47:8;58:2;139:7
tasks (5)
  45:10,15;90:11;125:13;
  139:6
taught (3)
  68:9;71:19;95:9
TDY (1)
  69:6
teach (3)
  69:1,6;122:18
teaching (1)
  138:19
team (15)
  63:2,3,8,8,8,14,18,18;
  64:4,7,14,15;73:1,8;82:11
teams (3)
  62:4;65:1;72:1
tech (3)
  61:19,21;85:7
technical (9)
  11:9,15;15:17;21:7;24:5;
  40:18;66:16;153:10;156:19
technically (3)
  68:17;75:15;92:1
technician (2)
  66:9;105:16
technique (3)
  123:10,12;146:14
tells (2)
  17:10;122:6
Temporary (3)
  60:14,16,19
Ten (8)
  7:10;108:11;113:11;
  139:14;140:7;145:15;

162:3,4
tend (1)
  130:6
ten-minute (1)
  135:4
terabytes (1)
  31:4
term (2)
  37:9;145:2
terminal (1)
  86:1
terms (4)
  2:15;45:21;65:9;68:17
test (4)
  62:4;68:16;73:5;133:17
tested (1)
  11:3
testers (1)
  131:10
testified (9)
  9:7;61:10;72:21;90:8;
  118:19,19;124:21;149:18;
  161:11
testify (2)
  101:15,21
testifying (1)
  158:16
testimony (21)
  2:16;5:10;6:3,9;8:1;
  58:11,21;60:19;114:20,21;
  118:3;134:21;135:7;161:6,
  15;163:6,8,10,16;165:12,15
testing (3)
  67:8;68:15;70:9
Thanks (1)
  58:9
theater (10)
  12:8;40:7;56:11;76:6,18;
  82:9;122:13;124:4;133:17;
  152:16
thereby (1)
  47:18
thief (1)
  113:6
thieves (2)
  113:10;114:9
thinking (1)
  165:11
third (1)
  124:1
THOMAS (1)
  3:13
though (3)
  55:7;106:9;123:19
thought (1)
  159:7
thousand (1)
  24:21
threat (15)
  71:19;99:4;102:10;110:9,
  19;116:21;121:15;129:20;
  142:18;143:21;145:12,18;
  158:7,10,15

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

threats (5)
  81:12;93:16;108:12;
  121:16;141:17
three (13)
  63:12;64:12;69:3;77:11,
  18;91:12;98:13;116:3;
  140:5,11;142:20,20;165:2
threw (1)
  63:12
thumb (1)
  160:13
tied (5)
  45:1;50:7;74:3,13;146:20
times (5)
  73:10;127:4;139:14;
  140:5,6
tire (3)
  139:16,16,17
tires (1)
  139:18
today (7)
  59:13;81:1;106:8;146:15;
  154:21;161:19;165:5
together (4)
  15:9;74:3;120:20;164:2
tomorrow (3)
  162:2;163:4;165:6
tomorrow's (1)
  164:2
tons (1)
  24:21
took (4)
  2:6;19:16;96:9;153:20
tool (11)
  86:2;131:7,13,14;133:14,
  16;137:11,14;140:20;
  147:9;156:19
tools (5)
  64:17;87:4;139:21;140:6;
  147:10
TOOMAN (35)
  3:12;78:14;81:16;82:20;
  87:19;90:13;93:18;94:8;
  101:10,14;105:11;114:12,
  16,17;115:11;124:5,15;
  126:16;128:5,21;135:3,13;
  147:1,4;148:21;149:13;
  151:4,10;155:5;157:19;
  158:3;161:2,4,17;163:2
Tooman's (1)
  118:8
top (9)
  29:10;54:12;59:21;116:3;
  117:7;123:21;124:1;132:7,
  15
topic (1)
  117:20
touch (1)
  22:16
towards (3)
  122:7;158:7;159:5
track (1)
  84:13

tracks (1)
  68:7
tracyblack (1)
  122:20
traffic (5)
  17:20;36:16;50:8,12;74:7
train (8)
  80:6;84:13,13;89:20;
  117:6;138:15,17,18
trained (4)
  69:13;105:19;107:4;
  116:6
trainer (2)
  79:9,14
training (24)
  62:7;66:16;67:6,17;
  69:11,12;70:8;71:8;94:12,
  15,16,18;95:7,7,10,12;
  105:16;106:9,11;107:4;
  110:17,20;127:20;138:16
transcript (4)
  2:3,10,12;96:14
transfer (2)
  159:19;161:12
transferred (1)
  32:16
translated (1)
  2:14
transmission (1)
  25:11
transmit (1)
  150:8
travel (1)
  69:6
treated (1)
  153:18
triage (1)
  72:1
trial (2)
  60:21;161:7
tricked (1)
  127:18
trips (1)
  104:21
trouble (2)
  89:7;91:10
true (5)
  75:4;78:15;80:12,14,16
trust (4)
  15:20;17:14,16;33:7
truth (7)
  9:6,6,7;56:13;61:9,9,10
try (10)
  64:16;75:21;93:2,3;
  106:2;111:5;136:5;143:3;
  145:19;146:5
trying (13)
  8:16;65:6;67:9;88:20;
  93:4;100:15;108:6;110:12;
  111:12,14;112:3,6;143:13
Tuesday (2)
  164:3,9
turn (2)

  42:11,13
turns (1)
  99:9
twice (2)
  69:5;91:8
two (31)
  7:20;20:8,8,20,20;25:14;
  30:17;31:7;32:19;33:21;
  40:2;54:12,13;57:18;60:7;
  65:9;73:11,12,14;85:18;
  91:3;96:8;99:3;102:12;
  103:4,12;129:21;141:21;
  142:20;145:15;163:1
type (28)
  14:5;16:10;29:9;64:17;
  68:12;69:19;70:15;72:2;
  77:11;88:18;91:13;95:15,
  17;98:15;103:17;108:21;
  112:10;117:10;119:19;
  124:16;127:14,21;138:4;
  141:10;142:19;147:11;
  148:11;150:20
typed (1)
  131:17
types (6)
  37:11;79:16;88:2;108:12;
  109:17;110:1
typical (1)
  118:21
Typically (5)
  50:13;90:11;105:6,7;
  136:16
typing (1)
  60:8

U

UAD (1)
  76:6
ultimate (1)
  107:7
ultimately (2)
  45:17;106:14
uncertified (1)
  2:12
unclassified (7)
  62:20;75:8;96:16;122:1;
  144:5;145:6;160:4
uncle (1)
  109:2
under (3)
  105:11;124:17;150:20
underlightened (1)
  123:21
underlined (1)
  124:1
unedited (1)
  2:12
unique (2)
  74:18;143:19
unit (13)
  9:11;34:6,8;64:9;73:3,4,
  6;86:6;93:6;116:20;123:8;

  130:16;146:8
UNITED (38)
  1:2,4;5:8,16,21;6:7;7:18;
  8:2,16;9:1;36:3,5;61:1,14,
  18;62:16,17;93:14;95:8;
  102:9;110:12,16;111:17;
  112:15;113:6,16,19;114:19,
  20;117:16,18;118:2;124:9,
  12;134:17;164:1;166:2,4
units (3)
  63:9;80:4;133:8
unit's (2)
  123:7;146:5
unless (2)
  50:12;137:19
unlikely (1)
  102:2
Unplug (1)
  135:9
unsure (1)
  147:8
up (61)
  12:12;14:9;17:4,9;20:9;
  23:3;32:17,19,20;36:20;
  39:5;42:16;46:17;48:9,13,
  16;49:18;50:18;51:6,7,15;
  52:2,8;58:12;60:7;62:14;
  63:16;65:3;66:3;72:15;
  74:6;75:14;76:8;78:13;
  83:17;86:1;89:1;90:5;
  91:10;93:7;99:9;100:21;
  102:7;107:19;111:8;119:2,
  8;122:10;123:13;130:12;
  132:2;134:2;136:6,19;
  138:9,9,14;140:5;144:20;
  148:6;160:9
update (9)
  17:6;27:18;28:4,6;29:20,
  21;72:12;76:5;88:11
updated (2)
  28:2,9
updates (5)
  18:18;28:11;29:13,14;
  30:5
updating (3)
  28:3,19;41:12
upon (2)
  102:3;158:9
upper (1)
  47:11
ups (1)
  121:11
usarmymail (1)
  84:16
usarmymil (4)
  50:11;122:21;125:21;
  143:8
use (60)
  15:4;19:5;20:5,19;22:19;
  24:13;25:12;33:3;35:21;
  41:21;43:9,20,20;59:8;
  62:4;70:7;73:20;77:2,3,5;
  80:1;84:14;93:2,2,3;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

103:20;104:1;105:21;
106:12;107:6;110:15,20;
111:8;122:9,18;123:2;
125:14;129:21;130:6,8,13,
14;131:5,10;133:5;137:4;
140:5,20;141:2;142:10;
143:7;146:14;148:4;150:8;
151:21;152:7;153:16;
155:21;156:9;160:13
used (32)
8:5;15:7;20:16;22:6;
24:14;25:13,14;26:8,14,15,
15,17;65:9;79:16;81:5;
102:21;122:15;123:20;
125:3;128:3;129:18;
131:15;133:6,16;137:7;
138:21;139:21;140:18;
141:10;146:10;147:6;
148:12
user (90)
12:17;13:5,6,12;14:7,15,
19;16:16,20;17:1,5,13;18:3,
5;19:5;35:14,15,16;37:6;
38:3,18;42:18;44:3;46:3;
48:3;50:2,14,14;51:17;52:5,
21;53:2,3,4,11,12;57:5,8,10,
14;58:2,13,18,20;70:16;
77:3,8,15;78:9,11;83:4,5;
84:8,10;85:10;86:2;104:16,
17,17;106:9;107:14,15,17;
108:2;117:1,4,5,10;119:18;
121:19;122:8;126:21;
130:14,21;135:10,21;136:8,
18;137:18;139:9;140:2;
142:4,7;143:5,9;146:20;
149:21;153:12,12;155:6
users (15)
34:2;42:7;53:7;59:1;75:2,
19;76:1;84:9;106:11;110:8;
131:8;133:21;137:8;139:1;
153:2
user's (1)
13:10
uses (4)
69:11;106:4;124:3;
150:11
USF (1)
23:19
USFA (1)
31:7
USFI (34)
12:9;13:14;16:5;17:18;
19:10,15;21:8;23:12;24:20;
28:8,17,20;29:10,11;30:5,
18;32:11;34:18;36:9,10;
38:14;40:5;43:20,21;44:18;
52:3,11;56:15,17,18;76:15;
83:19;121:12;153:13
using (15)
59:5;104:1,4,19;105:19;
124:2;126:10;128:6;
133:14;137:15;138:10;
141:6,7;143:9;144:6

usually (2)
47:5;108:17

V

VA (1)
1:11
vacation (1)
108:8
valuable (1)
71:17
valuation (5)
93:19;99:12;101:18;
102:3;113:5
value (41)
81:12;94:5;95:1,5,9,11,
14,20;97:9,12,14,17;98:3,6,
8,13,15,18;99:4,4,6,14,18;
100:7,7,9;103:5,13,14;
112:20,21;113:17;114:2,6;
116:2;117:6;118:5;124:10,
16,16;165:13
values (1)
93:16
valuing (1)
94:19
variables (1)
74:18
variation (1)
146:5
various (2)
70:1;97:17
vaults (1)
99:4
vector (1)
154:12
verbatim (1)
2:10
version (3)
130:1,2,2
versions (2)
8:4;130:1
versus (1)
89:13
view (3)
29:17;37:8;68:19
VII (1)
1:1
virtual (5)
22:11,17;26:7,9,10
visibility (5)
48:6;53:13,14;57:17,18
visit (11)
8:8;100:4;107:16;116:9;
117:11;127:19;136:1;
153:21;155:13,14;156:12
visited (1)
100:3
visualization (1)
22:19
voice (1)
45:7
voiceover (1)

11:1
VOIP (2)
45:4,6
VOIR (5)
4:12;93:20;94:5,7;101:11
VOLUME (2)
1:1;163:17
VON (34)
3:6;9:1,9;19:21;20:2;
21:4;23:15;24:2;30:9,14;
31:9,11,14,21;32:4,6;34:9,
11;35:3;36:11,13;37:20;
39:13,15;40:8,9,21;41:7;
54:1;55:12,14;57:1;60:12,
16
VS (1)
1:5
vulnerabilities (1)
65:17
vulnerability (4)
62:10;65:13;67:8;71:16
vunerabilities (3)
63:10,21;71:20

W

wacomo (1)
152:18
walking (1)
72:3
wall (1)
25:4
Wal-Mart (1)
25:5
wants (1)
81:14
war (2)
34:16;64:13
WARRANT (14)
4:10;9:14;10:7;12:1;
21:13;61:7,13;66:14,15;
67:15;68:3;73:13;79:11;
95:7
warrants (2)
66:20;69:13
watch (1)
156:19
watching (1)
2:7
way (16)
19:12;32:17;58:14;60:9;
67:10;72:15;90:6;96:17;
99:13;107:1;111:8;125:13;
144:20;148:9;162:9;163:4
ways (5)
17:8;68:20;103:5,6;113:9
web (19)
27:16;76:4;93:4;126:13;
129:11;130:10,10,11;
132:19;145:21;146:8;
147:14;148:13;154:2,11,13,
14,15;155:1
website (13)

106:2;107:16;112:9,13;
117:11;123:15,16;127:11;
129:12,16;147:17,19;
148:12
websites (6)
100:3,4;116:9,10;136:1;
147:8
Wednesday (2)
164:8,12
week (7)
27:21;48:17;90:16;91:12;
164:5,8,10
weekend (1)
165:20
weeks (1)
121:11
weight (1)
147:12
weren't (3)
56:16,18;92:21
WGet (32)
128:1,3,6,9,11,12,21;
129:7,9,10,10,14,18,19,21;
130:6;131:5,11,19;132:6,7,
10,11;134:6;146:10;147:6,
8,10,13,21;148:4,11
What's (8)
24:3;34:14;63:1;83:9;
108:18;124:7;128:7;148:9
Whenever (2)
100:17;106:9
Whereupon (2)
9:3;61:6
Wherever (1)
91:20
whoever's (1)
75:10
whole (13)
9:6;10:3;12:19,20;46:1;
56:18;57:15,19;61:9;111:6;
148:13;152:20;157:2
who's (2)
140:14;156:20
WHYTE (1)
3:8
wide (6)
43:20,20;62:14;73:8;
74:4,8
wider (1)
89:21
width (3)
74:19;75:17;76:7
Wikipedia (1)
137:12
Williamson (1)
6:9
Williamson's (1)
7:21
Window (5)
130:5;131:11,14,16;
134:9
Windows (10)
68:14;69:7,8,16;70:9;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

129:19;130:1,2;132:14,15
wire (1)
    26:8
wired (1)
    141:10
wish (1)
    111:9
withdrawn (1)
    165:14
withdraws (1)
    117:17
within (23)
    14:20;16:5;17:11;18:21;
    21:13;22:7;26:10;33:2;
    37:7,9,19;38:15,16;42:6,8;
    51:5;52:6;56:17;57:19,21;
    72:19;100:20;121:11
without (11)
    15:16;48:19;54:7;57:13,
    19;58:4,6;91:7;98:21;
    135:16;136:21
WITNESS (39)
    4:4,10;9:5;23:19;31:13;
    32:3;35:1;37:18;45:7;
    58:15;59:4,15;60:2,5;61:8;
    78:11;81:4;83:1;90:15;
    101:15;103:7;105:15,18;
    114:4;115:16;118:4;
    124:11;126:21;134:20;
    135:9;148:16,19;154:9;
    159:13,19;160:17;161:8;
    163:10;165:12
witnesses (5)
    161:11;164:13;166:1,4,6
word (1)
    2:15
words (6)
    130:12,14,18;146:14,17,
    19
work (13)
    29:3;34:8;41:15;72:19;
    77:4;79:9;87:13;90:1,5;
    104:6;137:17,18;140:7
worked (14)
    21:12,19;23:4;28:8;38:8;
    67:2;71:7;79:5;82:1;86:6;
    93:5;111:18;120:3,4
working (12)
    21:15;23:8;41:13;52:15;
    67:21;71:12;72:4;79:1;
    87:14;91:12;111:21;150:16
workload (1)
    90:1
works (2)
    36:10;71:14
world (1)
    122:3
worry (1)
    84:19
worth (1)
    98:7
woulds (1)
    50:14

write (3)
    140:9,18;155:10
writing (2)
    140:14,17
written (1)
    157:11
wrong (4)
    52:14;88:18;158:9,16

X

X-boxes (1)
    112:7
xxx-xx-9504 (1)
    1:7

Y

year (8)
    67:13,16;69:5;71:8;
    92:13;100:12,20;106:10
yearly (3)
    95:10;106:9;127:20
years (8)
    19:16;69:3;79:1;98:14;
    108:11;109:16;113:11;
    142:20
Yugoslavia (1)
    109:3

Z

zacharyblack (1)
    122:21
zero (2)
    71:13,14
zone (1)
    74:2

0

09 (1)
    12:4
0930 (2)
    162:10;163:3

1

1:35 (2)
    1:16;5:2
10 (4)
    12:5;87:1;89:4;139:10
100,000 (1)
    24:21
103 (1)
    4:13
109 (1)
    162:15
10th (5)
    104:3,19;109:11;123:4;
    139:8
12 (1)
    90:1

120 (1)
    27:3
128 (1)
    113:2
13,000 (1)
    38:18
130 (1)
    27:3
135 (1)
    4:14
137 (3)
    5:9;33:15;34:10
138 (3)
    5:14,17;8:15
139 (3)
    5:14,17;8:15
14 (1)
    90:2
140 (1)
    5:19
141 (1)
    5:18
142 (1)
    6:1
143 (1)
    6:8
144 (2)
    6:14;7:3
145 (2)
    6:14;7:2
146 (3)
    6:14,21;7:2
147 (11)
    6:14,19,20;7:16,17,19;
    8:3;49:9;118:13;119:11;
    129:6
147B (1)
    8:19
148 (11)
    6:14,18;7:17,17,19;8:3;
    32:2;49:12;118:13;120:7;
    129:5
148B (1)
    8:20
149 (1)
    4:15
15 (4)
    87:1;90:16;139:11;
    140:10
15,000 (2)
    25:4,5
150,000 (2)
    145:14,16
151 (2)
    4:16,17
155 (1)
    4:18
160 (1)
    44:5
160,000 (10)
    13:16;27:5,13;38:2,7;
    39:4,7;44:2,3,14
16th (1)

5:11
17 (4)
    1:16;4:2;6:9;163:15
175,000 (1)
    155:20
1990s (1)
    102:19
1994 (1)
    72:9
1995 (2)
    109:20,21
1CDArmymail (1)
    84:16
1st (14)
    17:18;38:10;73:11;84:3,
    12;91:11;110:6,7;133:11;
    139:3;142:14;147:17,18;
    153:19

2

2,000 (1)
    25:7
2:10 (1)
    7:13
2:20 (1)
    7:14
20 (5)
    8:4;21:11;28:7,21;104:21
2000 (2)
    26:15;79:8
2003 (8)
    25:21;26:15;27:4;70:2;
    79:8;84:12;93:11;110:6
2003/2004 (1)
    133:6
2004 (4)
    92:14,15;93:11;110:6
2004/2005 (1)
    73:12
2005 (2)
    92:15;93:11
2007 (6)
    72:9;78:5,14;81:8;
    137:11;144:10
2007/2008 (4)
    66:10;73:12;81:10;133:6
2008 (16)
    25:21;26:16;27:4;66:10;
    67:19;70:2;77:1;78:5,14;
    80:14;81:8;92:7;138:19;
    144:10;153:11;154:8
2009 (12)
    39:20;43:5;67:17;78:15;
    80:16;123:6;138:14;139:1,
    6;144:12;154:8,10
2009/2010 (1)
    13:15
2010 (21)
    39:21;43:5;44:4;50:17;
    51:10;54:17;55:1;67:17;
    78:15;79:8;80:18;81:21;
    92:6,8;116:21;138:14;

United States vs.
PFC Bradley E. Manning

UNOFFICIAL DRAFT
6/17/13 Afternoon Session

- Vol. 7
June 17, 2013

139:1,6;154:8,10,21

2011 (3)
80:20;123:6;138:19

2013 (4)
1:16;4:2;5:11;6:10

202 (1)
162:8

20-page (1)
7:20

210 (2)
115:10;116:1

22211 (1)
1:11

24 (8)
21:12;23:5;28:7,21;
29:21;47:5,10;48:16

24,000 (6)
39:11,19;44:8,10,11,13

24/7 (2)
21:17;23:10

25 (3)
23:5;38:16;139:18

255 (12)
66:7,18,19,19;67:5,13,16;
68:11;69:1;70:8;107:4;
110:17

2997 (1)
80:12

2nd (7)
65:1;84:2,3;104:2,18;
109:11;139:8

3

3 (3)
11:11,13;66:21

3,000 (1)
73:18

3:20 (1)
61:4

3:30 (2)
61:3,5

30 (2)
90:16;121:6

30,000 (1)
38:16

3020 (1)
144:12

31 (1)
162:17

32 (1)
162:17

33 (1)
162:18

34 (1)
162:18

365 (2)
21:17;23:10

3s (1)
130:20

4

4 (9)
62:4;65:1,5;105:20;
107:6;110:21;117:6;131:2,
10

41 (1)
4:6

47 (8)
6:13;7:1;33:9,14;39:14;
44:7,11;56:2

48 (11)
6:13;7:1;31:10,12;36:12;
39:14;44:7,11;47:5,10;
48:16

4ID (1)
84:2

5

5.5 (2)
79:6,8

5:00 (1)
135:5

5:10 (1)
135:6

5:50 (1)
162:6

55 (1)
4:7

57 (1)
4:8

6

6:00 (2)
162:5,7

6:25 (1)
166:21

602 (1)
105:12

61 (1)
4:11

64 (3)
20:9;22:6,10

7

7 (1)
124:6

701 (3)
124:15,17;126:18

72 (1)
48:16

7503 (1)
115:12

8

8 (2)
166:1,7

8578 (1)
11:10

8th (1)
166:13

9

9 (1)
4:5

90 (2)
47:7,12

94 (3)
4:12;72:6,9

98 (1)
79:4

99 (1)
79:4